EMS Trading Partner Users' Manual (TPM) for PY2007



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INTRODUCTION

This document describes the screens for the Trading Partner (TP) Interface software for the Electronic Management System (EMS). The exhibits displaying the interaction between the TP and the EMS are not screen shots. Therefore, the spacing on the actual displays may be different.

Throughout this document the term TP refers to all trading partners. The term State TP is used when an item applies only to the States.

This document is divided into sections for the following activities:

- Trading Partner Registration, Section 2
- Logging On to the System, Section 3
- Changing Settings, Section 4
- Receiving Acknowledgments, Section 5
- Sending Files, Section 6
- Requesting Transmission Status Report, Section 7
- Changing Password, Section 8
- Executing the State Return Menu, Section 9
- Logging Off the System, Section 10
- Trading Partner Session Example, Section 11



TRADING PARTNER REGISTRATION

Trading partners are transmitters that directly file with the Internal Revenue Service (IRS). This includes state taxing authorities. In order to obtain a User ID to access EMS, the transmitter must complete an application to become an authorized e-file provider. Logon to $\underline{\text{www.irs.gov}} \text{ and follow the directions provided in Publication 3112.}$



LOGGING ON TO THE SYSTEM

The EMS has incorporated a new password management feature within the trading partner interface, which is documented in Section 3 of this manual. This section illustrates the different responses for each password condition when a trading partner's password must be changed. Section 3 is categorized into five subsections, which are listed as follows:

- Successful Login No Password Change Required, Section 3.1
- Successful Login Password Change Required, Section 3.2
- Unsuccessful Login, Section 3.3
- EMS Unavailable, Section 3.4
- EMS Main Menu Processing, Section 3.5

Note: Password rules can be found in Appendix G.

The following discussion describes how a TP logs on to the system. When a TP connects to EMS, the "Authorized Use" banner shown in Exhibit 3-1 is displayed.

WARNING! THIS SYSTEM IS FOR AUTHORIZED USE ONLY!

This computer system is the property of the United States Government. The Government may monitor any activity on the system and retrieve any information stored within the system. By accessing and using this system, you are consenting to such monitoring and information retrieval for law enforcement and other purposes. Users should have no expectation of privacy as to communication on or stored within the system, including information stored locally on the hard drive or other media in use within the unit (e.g., floppy disks, tapes, CD-ROM, etc.).

Exhibit 3-1 Authorized Use Banner

The TP is then prompted for his/her EMS Login ID and password as shown in Exhibit 3-2. (Note: Not only will the password not be displayed, but also there will be no indication of how many characters the TP has typed.)

login: xxxxxxxx

Password:

Exhibit 3-2 Login and Password Prompts

3.1 SUCCESSFUL LOGIN - NO PASSWORD CHANGE REQUIRED

If the TP successfully logs on and the TP's password will expire in seven days or less, then the message shown in Exhibit 3-3 is displayed and processing continues as described in Section 3.5. (Note

that "N" will be replaced by the number of days remaining until the password must be changed.)

Password must be changed in N day(s).

Exhibit 3-3 Password Change in N Days

If there are more than seven days until the password expires, then processing continues as described in Section 3.5

3.2 SUCCESSFUL LOGIN - PASSWORD CHANGE REQUIRED

There are times when a TP correctly supplies his/her EMS Login ID and password, but is required to change his/her password before proceeding. These include:

- the TP first logs in
- the TP's current password has expired after 90 days
- the TP's password has been reset by an EMS system administrator as a result of the TP contacting the Home Submission Processing Center (SPC) EMS Help Desk

When any of these situations occur, the TP is prompted to enter a new password and to confirm his/her new password by re-entering it as shown in Exhibit 3-4.

Enter new password: Re-enter new password:

Exhibit 3-4 New Password Prompts

If the TP's responses meet the rules for changing the password, the password is changed and the message shown in Exhibit 3-5 is displayed. The TP will subsequently use the new password to log into either EMS processing center. Processing then continues as described in Section 3.5.

Password changed.

Exhibit 3-5 Password Change Confirmation

However, if the TP's responses to the password prompts do not meet the rules for changing the password, then an error message is displayed. A TP is given three tries to change his/her password.

If the TP does not enter the same password in response to the "Enter new password" and "Re-enter new password" prompts, then the password is not changed and the message shown in Exhibit 3-6 is displayed. If the TP has unsuccessfully attempted to change his/her

password less than three times, he/she is prompted for his/her new password as shown in Exhibit 3-4. If this is the third unsuccessful attempt, then the TP is disconnected.

New passwords don't match.

Exhibit 3-6 Unmatched New Passwords Message

If the TP enters a new password that does not meet the rules, then the password is not changed and the message shown in Exhibit 3-7 is displayed. If the TP has unsuccessfully attempted to change his/her password less than three times, he/she is prompted for his/her new password as previously shown in Exhibit 3-4. If this is the third unsuccessful attempt, the TP is disconnected.

Password rule(s) have not been met.

Exhibit 3-7 Password Rule Violation Message

If the TP has concurrent sessions, only one can change the password. If the TP attempts to login to a second session, while the first session is actively changing the password, the message shown in Exhibit 3-8 is displayed and the TP is disconnected.

Login failed. Another session is trying to change the password.

Exhibit 3-8 Another Login Session Changing Password Message

If a system error occurs during the change password operation, the password may or may not be changed. The message shown in Exhibit 3-9 is displayed and the TP is disconnected. The TP may need to try both his/her old and new passwords on his/her next login.

System error.

Exhibit 3-9 System Error Message

3.3 UNSUCCESSFUL LOGIN

After each unsuccessful login attempt due to the TP entering an incorrect EMS Login ID or password, the system displays the message shown in Exhibit 3-10.

Login incorrect

Exhibit 3-10 Login Incorrect Message

After three consecutive unsuccessful login attempts, the TP is disconnected. After six consecutive unsuccessful login attempts (in two or more consecutive sessions) the TP's account is disabled. Once the account has been disabled, any attempt to login to the account causes the system to display the message shown in Exhibit 3-11 and the TP to be disconnected. If this happens, the TP should contact the Home SPC EMS Help Desk.

This account is currently disabled.

Exhibit 3-11 Disabled Account Message

3.4 EMS UNAVAILABLE

If the EMS application is not available when the TP attempts to login, one of two messages is displayed after the login and password prompts. If EMS is unavailable because of scheduled down time, the message shown in Exhibit 3-12 is displayed and the TP is disconnected.

EFS is currently unavailable. Additional information may be available on IRS quick alerts.

Exhibit 3-12 EFS Unavailable Message

If the EMS application is unavailable for unscheduled reasons, the message shown in Exhibit 3--13 is displayed and the TP is disconnected.

EFS is busy. Wait at least 10 minutes, then retry.

Exhibit 3-13 EFS Busy Message

3.5 EMS MAIN MENU PROCESSING

Once the TP has successfully completed the login process (including changing his/her password, if necessary), the "last login" message is displayed as shown in the Exhibit 3-14.

Last login: Tue Sep 4 10:39:31 from computername

Exhibit 3-14 Last Login Message

The "Official Use" banner shown in Exhibit 3-15 is then displayed.

```
FOR OFFICIAL USE ONLY

# ##### ####

# # # ####

# # #####

# # ####

U.S. Government computer

FOR OFFICIAL USE ONLY
```

Exhibit 3-15 "Official Use" Banner

Next the Main Menu is displayed. The list of choices depends on whether the TP is a State TP or not. The Main Menu for non-State TPs is shown in Exhibit 3-16 while the Main Menu for State TPs is shown in Exhibit 3-17. Since most TPs are not State TPs the Main Menu exhibits in the remainder of this document, except for Section 9, will look like Exhibit 3-16.

From the Main Menu, the non-State TP can now choose to end the session, receive acknowledgment files and transmit a file, change the protocol and/or compression settings, request a Transmission Status Report, or change his/her password. Whenever the TP completes a process initially selected from the Main Menu other than Logoff, he/she is returned to the Main Menu screen.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice:

Exhibit 3-16 Initial Main Menu for non-State TP

From the Main Menu, the State TP can now choose to end the session, receive acknowledgment files and transmit a state ack file, change the protocol and/or compression settings, request a Transmission Status Report, change his/her password, or request the State Return Menu to perform the State functions described in Section 9. Whenever the State TP completes a process initiated by menu items 2-6, he/she is returned to the Main Menu screen. Whenever the State TP chooses to exit the State Return Menu, he/she is returned to the Main Menu.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password
- 7) Show State Return Menu

Enter your choice:

Exhibit 3-17 Initial Main Menu for State TP

For all TPs, the current file transfer protocol is displayed in brackets next to the "Change File Transfer Protocol" menu item. Likewise, the TP's current compression method is displayed in brackets next to the "Change Compression Method" menu item. The possible file transfer protocols and compression method values are identified in Section 4, where the "File Transfer Protocols" and "File Compression Methods" menus are discussed.

It should be noted that a TP's initial compression method is "NONE." Since the EMS does not auto-sense compressed files, a TP must select a compression method before submitting compressed files. If the TP has selected a compression method, his/her acknowledgment files and Transmission Status Report are compressed and returned using the selected compression method.

At any prompt, if the TP does not respond in 60 seconds the following message is displayed: "DISCONNECTING FROM EFS" and the TP is disconnected.

If the TP enters a character that is not one of the listed number choices, i.e., is not 1-6 for non-State TPs or is not 1-7 for State TPs, then an invalid menu selection message along with the Main Menu is displayed. An example is provided in Exhibit 3-18. If the TP fails to make a valid selection in three attempts, the TP is disconnected.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice: 8

Invalid menu selection. Try again.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice:

Exhibit 3-18 Invalid Main Menu Selection

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CHANGING SETTINGS

This section explains how to change the TP's communication protocol and compression settings.

4.1 CHANGING THE TRANSMISSION PROTOCOL

To change the transmission protocol, the TP chooses "Change File Transfer Protocol" as shown in Exhibit 4-1.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice: 3

Exhibit 4-1 Choosing Change File Transfer Protocol

When the TP chooses "Change File Transfer Protocol," the menu shown depends on whether or not the TP has been approved to use the FTP protocol (see Appendix C for FTP usage). If the TP cannot use the FTP protocol, the menu shown in Exhibit 4-2 is displayed. Brackets frame the TP's current file transfer protocol. The TP's initial setting is "ZMODEM."

FILE TRANSFER PROTOCOLS MENU

- 1) Return to MAIN MENU
- 2) [ZMODEM]
- 3) XMODEM-1K
- 4) YMODEM BATCH

Enter your choice:

Exhibit 4-2 Initial File Transfer Protocol Menu Display without FTP

If the TP has been approved to use the FTP protocol, he/she must provide certain configuration information to the IRS before being able to use FTP. Once the TP's FTP configuration information has been added to the EMS system, then the menu shown in Exhibit 4-3 is displayed.

FILE TRANSFER PROTOCOLS MENU

- 1) Return to MAIN MENU
- 2) [ZMODEM]
- 3) XMODEM-1K
- 4) YMODEM BATCH
- 5) FTP

Enter your choice:

Exhibit 4-3 Initial File Transfer Protocol Menu Display with FTP

The TP can change the protocol or return to the Main Menu. Exhibit 4-4 demonstrates the TP changing his/her file transfer protocol to FTP.

FILE TRANSFER PROTOCOLS MENU

- 1) Return to MAIN MENU
- 2) [ZMODEM]
- 3) XMODEM-1K
- 4) YMODEM BATCH
- 5) FTP

Enter your choice: 5

Exhibit 4-4 Changing File Transfer Protocol to FTP

After the TP selects a protocol, the Main Menu is redisplayed with the selected protocol in brackets as shown in Exhibit 4-5. This protocol setting is saved and is used for all future incoming/outgoing file transfers unless the TP changes the protocol again.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [FTP]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice:

Exhibit 4-5 Redisplay of Main Menu after Protocol Change

While in the File Transfer Protocols Menu, any character other than one of the menu number choices is considered invalid (as shown in Exhibit 4-6).

FILE TRANSFER PROTOCOLS MENU

- 1) Return to MAIN MENU
- 2) [ZMODEM]
- 3) XMODEM-1K
- 4) YMODEM BATCH
- 5) FTP

Enter your choice: 0

Exhibit 4-6 Invalid File Transfer Protocol Menu Selection

If the TP enters an invalid character, an invalid menu selection message along with the File Transfer Protocols Menu is displayed as shown in Exhibit 4-7. If the TP fails to make a valid selection in three attempts, the TP is disconnected.

Invalid menu selection. Try again.

FILE TRANSFER PROTOCOLS MENU

- 1) Return to MAIN MENU
- 2) [ZMODEM]
- 3) XMODEM-1K
- 4) YMODEM BATCH
- 5) FTP

Enter your choice:

Exhibit 4-7 Invalid File Transfer Protocol Menu Selection Response

After the TP chooses a valid option from the File Transfer Protocols Menu or chooses "Return to MAIN MENU," the Main Menu is redisplayed with the newly chosen protocol in brackets (Exhibit 4-8).

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [FTP]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice:

Exhibit 4-8 Redisplay of Main Menu after Protocol Change

The TP can choose any menu item to continue or choose Logoff to end the session.

4.2 CHANGING THE COMPRESSION METHOD

To change the compression method, the TP chooses "Change Compression Method" from the Main Menu as shown in Exhibit 4-9.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [FTP]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice: 4

Exhibit 4-9 Choosing Change Compression Method

The File Compression Methods Menu is displayed as shown in Exhibit 4-10. Brackets frame the current compression method.

FILE COMPRESSION METHODS MENU

- 1) Return to MAIN MENU
- 2) [None]
- 3) GZIP
- 4) COMPRESS

Enter your choice:

Exhibit 4-10 Initial File Compression Methods Menu Display

Note: The two supported compression methods are gzip (a freeware program available at www.gzip.org) and compress (a Unix compression utility). If the TP chooses 3) GZIP or 4) COMPRESS and sends a file that was compressed using PKZIP file format 2.04g, EMS is able to decompress the file. EMS Ack files that are returned to the TPs are named based on the compression method chosen. For example, a TP sends in a file named abc.zip compressed with PKZIP 9 and chooses option 3) GZIP. The Ack file returned will have the extension beginning with .GZ. See Exhibit A-1 in Appendix A for the complete list of possible Ack file names. PKZIP and WINZIP will then decompress these files successfully. PKZIP 9 and WINZIP 9 were both successfully tested with EMS. EMS does not support the use of PKZIP's new encryption capabilities because of the "key management" issue.

The TP can change his/her compression method or return to the Main Menu. Exhibit 4-11 demonstrates the TP changing his/her compression method to gzip.

FILE COMPRESSION METHODS MENU

- 1) Return to MAIN MENU
- 2) [None]
- 3) GZIP
- 4) COMPRESS

Enter your choice: 3

Exhibit 4-11 Changing Compression Method to GZIP

After the TP chooses a compression method, the Main Menu is redisplayed with the selected method framed by brackets as shown in Exhibit 4-12. This compression method setting is saved and is used for all future incoming/outgoing file transfers unless the TP changes the compression method again. The TP's initial setting is "None." Before using compression, the TP must select a method from the File Compression Methods Menu. (If, after choosing the compression method, the TP sends a file and EMS fails to decompress it, the file is rejected and an error acknowledgment is sent to the TP. Refer to Appendix B for the format of this error acknowledgment.)

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [FTP]
- 4) Change Compression Method [GZIP]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice:

Exhibit 4-12 Main Menu Display After Change Compression Method Menu

While in the File Compression Methods Menu, any character other than one of the menu number choices is considered invalid (as shown in Exhibit 4-13).

FILE COMPRESSION METHODS MENU

- 1) Return to MAIN MENU
- 2) [None]
- 3) GZIP
- 4) COMPRESS

Enter your choice: 5

Exhibit 4-13 Invalid File Compression Menu Selection

If the TP enters an invalid character, an invalid menu selection message along with the File Compression Methods Menu is displayed as shown in Exhibit 4-14. If the TP fails to make a valid selection in three attempts, the TP is disconnected.

Invalid menu selection. Try again.

FILE COMPRESSION METHODS MENU

- 1) Return to MAIN MENU
- 2) None
- 3) [GZIP]
- 4) COMPRESS

Enter your choice:

Exhibit 4-14 Invalid File Compression Methods Menu Selection Response

After the TP chooses a valid option from the File Compression Methods Menu or chooses "Return to MAIN MENU," the Main Menu is redisplayed with the newly chosen compression method in brackets (Exhibit 4-15).

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [FTP]
- 4) Change Compression Method [GZIP]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice:

Exhibit 4-15 Main Menu Display After Change Compression Method Menu

The TP can now choose any menu item to continue or choose Logoff to end the session.

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RECEIVING ACKNOWLEDGMENTS

From the Main Menu, the TP receives acknowledgment files and/or transmits a file by choosing "Receive/Send File(s)." This section discusses receiving acknowledgment files, and Section 6 discusses sending files to the EMS System.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [FTP]
- 4) Change Compression Method [GZIP]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice: 2

Exhibit 5-1 Choosing Receive/Send File(s)

When the TP chooses the "Receive/Send File(s)" menu item, the EMS TP Interface software checks to see if there are acknowledgment files to be sent to the TP. If there are no acknowledgment files, the message in Exhibit 5-2 is displayed and processing continues as discussed in Section 6. This allows TPs to submit files even if there are no acknowledgment files waiting delivery.

Number of Acknowledgment File(s) in outbound mailbox: 000

Exhibit 5-2 Zero Acknowledgment File Display

If there are acknowledgment files, the text shown in Exhibit 5-3 is displayed. The message shows the number of acknowledgment files waiting delivery to the TP. All acknowledgment files waiting delivery to the TP are delivered before the TP can submit a file. The count of acknowledgment files is updated every time the TP selects item 2) Receive/Send File(s), from the Main Menu. Additional acknowledgment files that were generated during the session are reflected in this count.

Number of Acknowledgment File(s) in outbound mailbox: 003

Are you ready to receive files? Y/[N]: Y or y

Exhibit 5-3 One or More Acknowledgment Files Display

If the TP enters anything other than "Y" or "y," the Main Menu (Exhibit 5-1) is redisplayed. If the TP fails to respond affirmatively three consecutive times he/she is disconnected.

If the TP responds to the prompt affirmatively, a message notifying the TP that the file transfer is about to begin is displayed. The message depends on the protocol being used. For Zmodem, Xmodem or Ymodem, the message in Exhibit 5-4 is displayed. For FTP, the message shown in Exhibit 5-5 is displayed. The file transfer begins after the appropriate notice.

EFS ready for modem download.

Exhibit 5-4 Modem Download Notice

Putting File(s) by FTP.

Exhibit 5-5 FTP "Putting Files" Notice

All acknowledgment files are sent as separate files. If the TP is also using compression, each file is separately compressed. (See Appendix A for a description of acknowledgment file names.)

If the TP Interface software detects that the transmission did not complete successfully, the message in Exhibit 5-6 is displayed followed by the Main Menu (Exhibit 5-1). If this happens three times in a row, the TP is disconnected.

Error transmitting Acknowledgment File(s).

Exhibit 5-6 Acknowledgment File Transmission Error Message

If the TP Interface software does not detect an error, the message shown in Exhibit 5--7 is displayed.

Acknowledgment File(s) transmission complete.

Exhibit 5-7 Acknowledgment File Transmission Complete Message

Next, the TP is asked if he/she wants to send a file. Section 6 discusses sending files. After the receive acknowledgment process has completed, if the TP has been suspended, he/she is not allowed to transmit new files. Instead, the message "SUSPENDED TRANSMITTER/ETIN" is displayed, and the TP is disconnected from EMS (Exhibit 5-8).

SUSPENDED TRANSMITTER/ETIN.

DISCONNECTING FROM EFS.

Exhibit 5-8 Suspended TP Message

A suspended transmitter is allowed to log on to EMS to continue to receive acknowledgments but not allowed to transmit. Suspension occurs for the following reasons:

- Submission of a file with a virus (refer to Appendix B)
- Submission of a file with an XML threat (refer to Appendix B)
- Suspension by tax examiner for procedural reasons

Should this occur, the TP must contact the Home SPC EMS Help Desk to request removal of the suspended status.

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SENDING FILES

This section describes the process of transmitting files to EMS. It details the messages and prompts for TPs registered as transmitters.

After the receive acknowledgments process has completed, or if there are no acknowledgment files to receive, the TP is asked if he/she wants to send a file as shown in Exhibit 6-1.

Do you want to send a file? Y/[N]: Y or y

Exhibit 6-1 Send Tax Return File Prompt

If the TP enters anything other than "Y" or "y," the Main Menu (Exhibit 5-1) is redisplayed. If there are no acknowledgment files for the TP to receive and the TP fails to respond affirmatively three times in a row, the TP is disconnected.

Otherwise, the next prompt depends on the file transfer protocol being used. If the TP is using Zmodem, Ymodem, or Xmodem, he/she is prompted to start the file transfer as shown in Exhibit 6-2.

Enter an upload command to your modem program now.

Exhibit 6-2 Modem Upload Prompt

If the TP is using the FTP protocol, he/she is prompted to supply a file name as shown in Exhibit 6-3. After supplying the file name the TP is notified that the FTP transfer is beginning. This notice is also shown in Exhibit 6-3.

Enter the LOCAL name of the file you are sending from your system: myfile

Getting file by FTP.

Exhibit 6-3 FTP File Name Prompt

If the TP responds to the filename prompt in Exhibit 6-3 with only a carriage return (<CR>), then the notice shown in Exhibit 6-4 is displayed. If the TP responds with only a <CR> three times in a row, the TP is disconnected.

Invalid file name.

Enter the LOCAL name of the file you are sending from your system: <CR>

Exhibit 6-4 Invalid File Name Message

Once the TP has been notified that the file transfer is beginning (Exhibit 6-2 or 6-3), the TP has 60 seconds to begin his/her file transfer. If the EMS does not receive at least part of the TP's file within 60 seconds, the TP is disconnected.

If the TP Interface software detects that the transmission did not complete successfully, the message in Exhibit 6-5 is displayed followed by the Main Menu. If this happens three consecutive times, the TP is disconnected.

Error receiving file. You must send it again.

Exhibit 6-5 Transmission Receipt Error Message

If the TP Interface software does not detect an error, the transmission confirmation message shown in Exhibit 6-6 is displayed followed by the Main Menu (Exhibit 6-7). If the TP hangs up without receiving the confirmation message, there is no guarantee that the EMS will process the file(s).

The transmission confirmation message contains the Global Transmission Key (GTX Key) and the reference file name. The GTX Key is the unique identifier assigned by the EMS to the file sent by the TP, and is used to track the processing of the file and its subsequent acknowledgment. The reference file name is used when constructing the name of the acknowledgment file delivered to the TP. (See Appendix A for a description of the GTX Key and its relationship to the reference file name.)

Transmission file has been received with the following GTX Key:

S20041020123423.1700

10200001

Exhibit 6-6 Transmission Confirmation Message Display

The Main Menu is displayed again as shown in Exhibit 6-8. The TP can choose any menu item to continue or Logoff to end the session.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [FTP]
- 4) Change Compression Method [GZIP]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice:

Exhibit 6-7 Main Menu Display

See Section 11, Exhibit 11-1 for an example of a complete session.

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SECTION 7

REQUEST TRANSMISSION STATUS REPORT

A Transmission Status Report may be requested from the Main Menu shown in Exhibit 7-1. Examples of Transmission Status Reports are contained in Appendix D. A transmission status report will show the status of all transmissions submitted by the TP since 12:00 a.m. five days ago. For State TPs the report also shows the status of all state acknowledgments that have been received and redirected to other TPs since 12:00 a.m. five days ago. Only one report may be requested per TP session. The report is returned to the TP in an HTML format file that is suitable for viewing with a Web browser after the TP session completes.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [FTP]
- 4) Change Compression Method [GZIP]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice: 5

Exhibit 7-1 Choosing Request Transmission Status Report

When the TP chooses the "Request Transmission Status Report" menu item, a message notifying the TP that the report transfer is about to begin is displayed. The message depends on the protocol being used. For Zmodem, Xmodem, or Ymodem, the message in Exhibit 7-2 is displayed. For FTP, the message shown in Exhibit 7-3 is displayed. The file transfer will begin after the appropriate message.

EFS ready for Report download.

Exhibit 7-2 Modem Download Message

Putting Report by FTP.

Exhibit 7-3 FTP "Putting Report File" Message

If the TP has selected compression, the report is compressed. (See Appendix D for a description of Transmission Status Report file names.)

If the TP Interface software detects that the transmission did not complete successfully, the message in Exhibit 7-4 is displayed followed by the Main Menu. If this happens three times in a row, the TP is disconnected.

Error transmitting Report File.

Exhibit 7-4 Report File Transmission Error Message

If the TP Interface software does not detect an error, the message shown in Exhibit 7-5 is displayed.

Report File transmission complete.

Exhibit 7-5 Report File Transmission Complete Message

After the file transfer has completed, the Main Menu is redisplayed.

TPs can make only one report request per session. If the TP tries to request a report again, the message shown in Exhibit 7-6 is displayed followed by the Main Menu. If this happens three times in a session, the TP is disconnected.

Only one Report request allowed.

Exhibit 7-6 Report Request Error

SECTION 8

CHANGING PASSWORD

TPs are responsible for maintaining their passwords. When a TP changes his/her password at one EMS processing center, it will be propagated to the other EMS processing center. Therefore, a TP should only execute the change password procedures once per new password.

To change his/her password, the TP chooses "Change Password" as shown in Exhibit 8-1.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice: 6

Exhibit 8-1 Choosing "Change Password"

The TP is then prompted to enter his/her current password and to enter his/her new password twice as shown in Exhibit 8-2. Not only will the passwords not be displayed, but also there will be no indication of how many characters the TP has typed. The new password must meet the rules described in Appendix G.

Enter current password:
Enter new password:
Re-enter new password:

Exhibit 8-2 Current and New Password Prompts

If the TP's responses meet the rules for changing the password, the password is changed and the message shown in Exhibit 8-3 is displayed. The TP will now use the new password to log into any EMS processing center. The Main Menu is then redisplayed as shown in Exhibit 8-4.

Password changed.

Exhibit 8-3 Password Change Confirmation

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice:

Exhibit 8-4 Redisplay of Main Menu

If the TP's responses to the password prompts do not meet the rules for changing the password, then an error message is displayed. A TP is given three tries per session to change his/her password.

If the TP incorrectly enters his/her current password, the password is not changed and the message shown in Exhibit 8-5 is displayed. If the TP has unsuccessfully attempted to change his/her password less than three times, he/she is prompted for his/her current and new passwords as previously shown in Exhibit 8-2. If this is the third unsuccessful attempt, then the Main Menu is redisplayed as previously shown in Exhibit 8-4.

Incorrect current password.

Exhibit 8-5 Incorrect Current Password Message

If the TP does not enter the same password in response to the "Enter new password" and "Re-enter new password" prompts, then the password is not changed and the message shown in Exhibit 8-6 is displayed. If the TP has unsuccessfully attempted to change his/her password less than three times, he/she is prompted for his/her current and new passwords as previously shown in Exhibit 8-2. If this is the third unsuccessful attempt, then the Main Menu is redisplayed as previously shown in Exhibit 8-4.

New passwords don't match.

Exhibit 8-6 Unmatched New Passwords Message

If the TP enters a new password that does not meet the rules identified in Appendix G, then the password is not changed and the message shown in Exhibit 8-7 is displayed. If the TP has unsuccessfully attempted to change his/her password less than three times, he/she is prompted for his/her current and new passwords as previously shown in Exhibit 8-2. If this is the third unsuccessful attempt, then the Main Menu is redisplayed as shown in Exhibit 8-4.

Password rule(s) have not been met.

Exhibit 8-7 Password Rule Violation Message

If it has been less than seven days since the last time the TP changed his/her password, he/she is prompted for his/her current and new passwords as previously shown in Exhibit 8-2, the password is not changed and the message shown in Exhibit 8-8 is displayed. The TP is then returned to the Main Menu as previously shown in Exhibit 8-4. If it has been less than seven days and the TP needs to change his/her password, he/she should contact his/her Home SPC EMS Help Desk.

Less than 7 days from last change. Password not changed.

Exhibit 8-8 Less Than 7 Days Message

If the TP has concurrent sessions, only one can change the password. If the TP attempts to change his/her password in more than one session, only one will be allowed and the message shown in Exhibit 8-9 is displayed to the other session(s). After this message is displayed, the TP is returned to the Main Menu as previously shown in Exhibit 8-4.

Password not changed. Another session is trying to change the password.

Exhibit 8-9 Another Session Changing Password Message

If a system error occurs during the change password operation, the password may or may not be changed. The messages shown in Exhibit 8-10 are displayed and the TP's session is terminated. The TP may need to try both his/her current and new passwords on his/her next login.

System error.

DISCONNECTING FROM EFS.

Exhibit 8-10 System Error and Disconnecting Message

The TP can only choose the "Change Password" menu item once during a session. If the TP chooses the "Change Password" menu item more than once, the message shown in Exhibit 8-11 is displayed immediately. If this happens three times in a session, the TP is disconnected; otherwise the Main Menu is redisplayed as previously shown in Exhibit 8-4. Note: You will not go through the password prompts for this scenario.

Can only choose Change Password once.

Exhibit 8-11 Change Password Once Message

Except in the case of a system error the Main Menu is displayed as previously shown in Exhibit 8-4 after the TP completes the change password process whether or not he/she was successful.

SECTION 9

EXECUTING THE STATE RETURN MENU

When the trading partner is a State TP that can retrieve state return data, the Main Menu includes an additional option, "Show State Return Menu." The State TP chooses "Show State Return Menu" to retrieve state return data, reset state return files, or to generate a report.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password
- 7) Show State Return Menu

Enter your choice:

Exhibit 9-1 Main Menu with Show State Return Menu Option

9.1 STATE RETURN MENU UNAVAILABLE

If the State TP selects "Show State Return Menu" from the Main Menu, and the State Return Menu is unavailable, one of two messages is displayed. If the State Return Menu is unavailable because of a scheduled down time, the message shown in Exhibit 9-2 is displayed and the State TP is returned to the Main Menu.

State Return Menu is currently unavailable. Additional information may be available on IRS quick alerts.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password
- 7) Show State Return Menu

Enter your choice: 7

Exhibit 9-2 State Return Menu Unavailable Message

If the State TP chooses "Show State Return Menu" from the Main Menu and the State Return Menu is busy, the message as shown in Exhibit 9-3 is displayed and the State TP is returned to the Main Menu.

State Return Menu is busy. Wait at least 10 minutes, then retry.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password
- 7) Show State Return Menu

Enter your choice: 7

Exhibit 9-3 State Return Menu Busy Message

9.2 STATE RETURN MENU

When the State TP chooses "Show State Return Menu" from the Main Menu, the State Return Menu shown in Exhibit 9-4 is displayed.

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-4 State Return Menu

If the State TP enters a character that is not one of the listed number choices, then an invalid menu selection message along with the State Return Menu is displayed as shown in Exhibit 9-5. If the State TP fails to make a valid selection from the State Return Menu in three attempts, the State TP is disconnected.

Invalid menu selection. Try again.

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-5 Invalid Menu Selection Message

After the State TP completes tasks on the State Return Menu and chooses "Return to MAIN MENU," the Main Menu is redisplayed (Exhibit 9-1). The State TP can continue selecting menu options or choose "Logoff" from the Main Menu to end the session.

9.3 RESETTING A STATE FILE

When the State TP chooses "Reset State File" from the State Return Menu, the State TP is asked to enter the state file sequence number as shown in Exhibit 9-6.

Enter State File sequence number or press Enter to return to menu:

Exhibit 9-6 Reset State File Prompt

If the State TP depresses "Enter" without entering a state file sequence number, the State TP is returned to the State Return Menu (Exhibit 9-4). If the State TP enters a nonnumeric entry, the State TP is returned to the State Return Menu after being informed of an invalid file sequence number entry as shown in Exhibit 9-7. If the State TP fails to enter a valid state file sequence number in three attempts, the State TP is disconnected.

Invalid file sequence number.

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-7 Invalid File Sequence Number Message

If the State TP enters a valid state sequence number and the state file is successfully reset so that the state can download the file, a reset message is displayed that contains the state filename as shown in Exhibit 9-8.

Flag reset to allow downloading of requested State File <filename>.

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-8 State File Reset Message

If an error is detected when trying to reset the state file, one of the following messages is displayed followed by the State Return Menu (Exhibits 9-9, 9-10, 9-11, or 9-12):

Unable to locate requested State File <filename>. State File <filename> not reset.

Please contact the IRS e-Help Desk for assistance.

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-9 Unable to Locate State File Message

Or

System indicates requested State File <filename> has not been sent. State File <filename> not reset.

Please contact the IRS e-Help Desk for assistance.

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-10 State File Not Sent Message

Or

System indicates requested State File <filename> is in use. State File <filename> not reset.
Please contact the IRS e-Help Desk for assistance.

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-11 State File in Use Message

Or

Unable to locate information for requested State File <filename>. State File <filename> not reset.

Please contact the IRS e-Help Desk for assistance.

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-12 Unable to Locate State File Information Message

If the State TP encounters errors three consecutive times when trying to reset the state file, the State TP is disconnected.

If the State TP reaches the limit for the number of state files that can be reset in one State Return Menu session (10 is the limit), and the State TP selects "Reset State File" from the State Return Menu,

the message shown in Exhibit 9-13 is displayed followed by the State Return Menu.

Only ten State Files can be reset in one session.

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-13 Ten State Files Reset Limit Message

9.4 REQUESTING A STATE FILES TO DOWNLOAD REPORT

Previously this report was automatically displayed during the state data retrieval session. When the State TP chooses "Request State Files to Download Report" from the State Return Menu and no state files are available to send to the State TP, the message shown in Exhibit 9-14 is displayed followed by the State Return Menu. If this happens three times in a row, the State TP is disconnected.

No State Files to download. No Report is available.

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-14 No State Files to Download Report Message

When the State TP chooses "Request State Files to Download Report" from the State Return Menu, and there are state files to download, the State Files Download Report is transmitted to the State TP using the current default file transfer protocol and the compression method settings displayed on the Main Menu. A message notifying the State TP that the report transfer is about to begin is displayed. For Zmodem, Xmodem, or Ymodem, the message in Exhibit 9-15 is displayed. For FTP, the message shown in Exhibit 9-16 is displayed. The file transfer will begin after the appropriate notice.

Beginning Report download.

Exhibit 9-15 Modem Download Report Notice

Putting Report by FTP.

Exhibit 9-16 FTP Download Report Notice

If the State TP is using GZIP compression, the file will be named MMDDhhmm_SRS.gz. If the State TP is using COMPRESS compression, the file will be named MMDDhhmm_SRS.Z. If the State TP is not using compression, the file will be named MMDDhhmm_SRS.txt.

If the report file transmission did not complete successfully, the message shown in Exhibit 9-17 is displayed followed by the State Return Menu. If this happens three times in a row, the State TP is disconnected.

Error transmitting Report File.

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-17 Error Transmitting Report File Message

If the report file is transmitted successfully, the message shown in Exhibit 9-18 is displayed followed by the State Return Menu.

Report File transmission complete.

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-18 Report File Transmission Complete Message

The State TP can make only one State Files to Download report request per State Return Menu session. If the State TP tries to request a report again, the message shown in Exhibit 9-19 is displayed followed by the State Return Menu. If this happens three times in a State Return Menu session, the State TP is disconnected.

Only one Report request allowed.

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-19 One Report Request Allowed Message

Exhibit 9-20 shows an example of the State Files to Download Report.

IRS State Retrieval Subsystem State Files to Download Report

Run Date: 2005-02-01 12:23:50

Location: Enterprise Computing Center at Memphis

| FILE | | | NUMBER | COMPRESSED |
|----------|---------------------|------|---------|------------|
| NAME | DATE/TIME LOADED | TEST | RETURNS | FILE SIZE |
| | | | | |
| ga274.gz | 2005-02-01 13:35:50 | N | 3000 | 1971147 |
| ga275.gz | 2005-02-01 13:35:50 | N | 3000 | 1960644 |
| ga276.gz | 2005-02-01 13:35:50 | N | 2035 | 1092873 |
| ga277.gz | 2005-02-01 13:46:09 | N | 726 | 228829 |
| | | | | |

Exhibit 9-20 State Files to Download Report Example

9.5 RECEIVING STATE RETURN FILES

When the State TP chooses "Receive State Return File(s)" from the State Return Menu and no state files are available to send to the State TP, the message shown in Exhibit 9-21 is displayed followed by the State Return Menu.

No State Files to download.

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-21 No State Files to Download Message

If the State TP chooses "Receive State Return File(s)" three times in a row and no state return files are available, the State TP is disconnected.

When the State TP chooses "Receive State Return File(s)" from the State Return Menu and state data files are present on the SRS that have not been sent to the State TP, they will be transmitted as separate files to the State TP. The state files are transmitted to the State TP using the current default file transfer protocol displayed on the Main Menu. The state return files sent to the State TP will continue to be in GZIP compressed format. The compression setting from the Main Menu is ignored for the transmission of state return files. A message notifying the State TP that the state file(s) transfer is about to begin is displayed. For Zmodem, Xmodem, or Ymodem, the message in Exhibit 9-22 is displayed. For FTP, the message shown in Exhibit 9-23 is displayed. The state file transfer will begin after the appropriate notice.

EFS ready for modem download.

Exhibit 9-22 Modem Download Notice

Putting File(s) by FTP.

Exhibit 9-23 FTP "Putting File(s)" Download Notice

When the retrieval of state return data file(s) is successfully completed, the message shown in Exhibit 9-24 is displayed before the State TP is returned to the State Return Menu.

STATE DATA TRANSMISSION COMPLETE
Weekday Month Day HH:MM:SS Timezone Year

STATE RETURN MENU

- 1) Return to MAIN MENU
- 2) Reset State File
- 3) Request State Files to Download Report
- 4) Receive State Return File(s)

Enter your choice:

Exhibit 9-24 State Data Transmission Complete Message

If there are errors during the transmission of the last file, or the State TP aborts the transmission, the communications line is disconnected after the messages shown in Exhibit 9-25 are displayed.

STATE DATA TRANSMISSION ERRORS
Weekday Month Day HH:MM:SS Timezone Year

DISCONNECTING FROM EFS.

Exhibit 9-25 State Data Transmission Errors Message

SECTION 10

LOGGING OFF THE SYSTEM

To end his/her session, TP chooses "Logoff" from the Main Menu (Exhibit 10-1).

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [FTP]
- 4) Change Compression Method [GZIP]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice: 1

Exhibit 10-1 Choosing Logoff

The TP Interface software performs any necessary cleanup activities, records statistical information, and then displays the message shown in Exhibit 10-2. The TP should not hang up before receiving the disconnect message. If he/she does hang up prematurely, EMS may not complete its cleanup activities. This could result in the TP receiving his/her acknowledgment files again in the next login session or having the submission file discarded.

DISCONNECTING FROM EFS.

Exhibit 10-2 End of TP Session Message



SECTION 11

TRADING PARTNER SESSION EXAMPLES

This section provides a complete example of the TP session. Exhibit 11-1 illustrates when the TP logs in, receives acknowledgment files, submits a tax return file, and terminates the session.

WARNING! THIS SYSTEM IS FOR AUTHORIZED USE ONLY! This computer system is the property of the United States Government. The Government may monitor any activity on the system and retrieve any information stored within the system. By accessing and using this system, you are consenting to such monitoring and information retrieval for law enforcement and other purposes. Users should have no expectation of privacy as to communication on or stored within the system, including information stored locally on the hard drive or other media in use within the unit (e.g., floppy disks, tapes, CD-ROM, etc.). login: xxxxxxxx Password: Last login: Tue Sep 4 10:39:31 from computername FOR OFFICIAL USE ONLY ##### #### # # # ##### # # #### # U.S. Government computer FOR OFFICIAL USE ONLY MAIN MENU 1) Logoff 2) Receive/Send File(s) 3) Change File Transfer Protocol [ZMODEM] 4) Change Compression Method [NONE] 5) Request Transmission Status Report 6) Change Password Enter your choice: 2

Exhibit 11-1 Transmitter TP Session to Pick Up Acknowledgments and Transmit a Tax Return File

```
Number of Acknowledgment File(s) in outbound mailbox: 003
```

EFS ready for modem download.

Acknowledgment File(s) transmission complete.

Are you ready to receive files? Y/[N]: Y

Do you want to send a file? Y/[N]: Y

Enter an upload command to your modem program now.

Transmission file has been received with the following GTX Key:

S20041020123423.1700

10200001

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice: 1

DISCONNECTING FROM EFS.

Exhibit 11-1 (A) Transmitter TP Session to Pick Up Acknowledgments and Transmit a Tax Return File

Appendix A

GTX Key and Acknowledgment File Name Formats



GTX KEY AND ACKNOWLEDGMENT FILE NAME FORMATS

The format of the GTX key is SYYYYMMDDhhmmss.xxxx where S is the processing site identifier, YYYY=year, MM=month, DD=day, hh=hour, mm=minutes, ss=seconds, and xxxx=milliseconds. The site identifier is 'T' for transmissions processed in Memphis and 'U' for transmissions processed in Martinsburg.

The format of the reference name is MMDDnnnn where MM month and DD day match the GTX Key. The nnnn number is a 4-digit sequence number generated by the EMS. The reference name is used to generate the acknowledgment file name.

The acknowledgment file can be positive or negative. If the acknowledgment filename ends with ".NAK", then the EMS detected an error in the file submitted by the TP and processing of the file was discontinued.

Based on the TP compression settings, the EMS acknowledgment files will be named as described in Exhibit A-1. Any version of PKZIP or WINZIP that supports the PKZIP 2.04g file format, will successfully decompress Ack files compressed with GZIP or COMPRESS. (Also see the Note on page 4-5 after Exhibit 4-10.)

| Form and Format | ACK File Name (Note 1) | ACK File Name w/ Gzip (Note 2) | ACK File Name w/ Compress (Note 3) |
|----------------------------------|------------------------|--------------------------------------|------------------------------------|
| 94X - XML | | | |
| EMS Error Acknowledgment | MMDDnnnn.NAK | MMDDnnnn.GZ | MMDDnnnn.Z |
| 94X XML System Acknowledgment | MMDDnnnn.ACK | MMDDnnnn.GZ | MMDDnnnn.Z |
| 1065, 112x and 99x | | | |
| Families (XML) | | | |
| EMS Error | MMDDnnnn.NAK | MMDDnnnn.GZ | MMDDnnnn.Z |
| Acknowledgment | | | |
| MeF Acknowledgment | MMDDnnnn.ACK | MMDDnnnn.GZ | MMDDnnnn.Z |
| 1065/1041 - Proprietary | | | |
| (TRANA/TRANB/RECAP) | | | |
| EMS Error | MMDDnnnn.NAK | MMDDnnnn.GZ | MMDDnnnn.Z |
| Acknowledgment | | | |
| Unisys Acknowledgment | MMDDnnnn.ACK | MMDDnnnn.GZ | MMDDnnnn.Z |

Exhibit A-1 Ack File Names

| Form and Format | ACK File Name (Note 1) | ACK File Name w/ Gzip (Note 2) | ACK File Name w/ Compress (Note 3) |
|--|---------------------------|--------------------------------------|------------------------------------|
| XML PIN Registration | | | |
| EMS Communications | MMDDnnnn.NAK | MMDDnnnn.GZ | MMDDnnnn.Z |
| Error | | | |
| Acknowledgment | | | |
| EMS PIN Registration Acknowledgment | MMDDnnnn.ACK | MMDDnnnn.GZ | MMDDnnnn.Z |
| 1040/ETD - Proprietary | | | |
| (TRANA/TRANB/RECAP) | | | |
| EMS Error | MMDDnnnn.NAK | MMDDnnnn.GZ | MMDDnnnn.Z |
| Acknowledgment | | | |
| Unisys | MMDDnnnn.ACK | MMDDnnnn.GZ | MMDDnnnn.Z |
| Acknowledgment | | | |
| State Ack Transmission | | | |
| EMS Error | MMDDnnnn.NAK | MMDDnnnn.GZ | MMDDnnnn.Z |
| Acknowledgment | | | |
| EMS Acceptance | MMDDnnnn.ACK | MMDDnnnn.GZ | MMDDnnnn.Z |
| Acknowledgment | | | |
| State Ack Redirected to | MMDDnnnn.Sss | MMDDnnnn.GZ | MMDDnnnn.Z |
| TP ETIN | (see Note 4) | | |

Exhibit A-1 (cont.) Ack File Names

Note 1: MM = monthDD = day

nnnn = 4 digit sequence number

MMDD is taken from the GTX Key nnnn is a 4-digit sequence number generated by the EMS at the time the TP submitted his/her file.

Note 2: gzip preserves the uncompressed ACK file name (e.g., MMDDnnnn.ACK) in its archive.

Note 3: Compress does not preserve the uncompressed ACK file name.

If a TP submits a file that is given the GTX Key "\$20041020154710.0800," the first four digits of the reference name would be "1020." The next four digits would be a sequence number generated by the EMS, e.g., "0001." The reference name would then be "10200001." An EMS error acknowledgment file would be named "10200001.NAK." An acknowledgment from the Unisys system would be named "10200001.ACK." If the acknowledgment file is compressed with gzip it will be named "10200001.GZ." If the acknowledgment file is compressed with Unix compress it will be named "10200001.Z."

Note 4: For State Ack files that are redirected to a TP ETIN, the ack file will have the file extension "Sss" where "ss" is the standard postal abbreviation published in IRS Publication 1346 "Standard Postal Service State Abbreviations and Zip Codes." For example, the file extension "SMD" will be used for an ack file from the state of Maryland. If the state ack file

contains a code that does not appear in Pub 1346, then "ss" will be replaced with "XX". In this case, the file extension would be "SXX".

Note 5: The acknowledgment file names shown in this appendix use upper case letters. These are the names as they appear on EMS. Some file transfer protocols and/or some operating systems may translate the names into lowercase.



A-4

Appendix B

XML Error Acknowledgment Formats



XML ERROR ACKNOWLEDGMENT FORMAT FOR DETECTED VIRUSES

EMS checks all incoming files for viruses. If a virus is detected, EMS returns an error acknowledgment to the TP in XML format. If EMS detects a virus, the TP is placed in suspended status. Should this occur, the TP must contact the Home SPC EMS Help Desk to request removal of the suspended status.

Below is the format for the error acknowledgment that is returned to the TP when a virus is detected in the transmission. All TPs receive the XML format acknowledgment, even if the transmission was sent using a different IRS approved format. Note that the second line of the file, the Content-Description contains a plain English description of the problem; therefore, an understanding of XML is not required to interpret the message. The shaded areas contain the GTX key, a timestamp, and the virus name. These values vary for each returned acknowledgment. The remainder of the message is constant.

```
MIME-Version: 1.0
Content-Description: Notification that transmission file T200303211345.0100 was
rejected because it contained a virus
Content-Type: text/xml; charset=UTF-8
<?xml version="1.0" encoding="UTF-8"?>
<TransmissionAcknowledgement>
       <AcknowledgementTimestamp>2003-12-13T12:05:22-05:00</AcknowledgementTimestamp>
       <TransmissionStatus>R</TransmissionStatus>
       <Errors errorCount="1">
             <Error errorId="1">
                    <ErrorCategory>Unsupported</ErrorCategory>
                    <ErrorMessage><!CDATA[A VIRUS (virus name) WAS DETECTED IN</pre>
                    THIS FILE]]></ErrorMessage>
                    <RuleNumber>T0000-009</RuleNumber>
                    <Severity>Reject and Stop</Severity>
             </Error>
       </Errors>
       <GTXKey>T200303211345.0100</GTXKey>
</TransmissionAcknowledgement>
```

XML ERROR ACKNOWLEDGMENT FORMAT FOR DETECTED XML THREATS

EMS checks incoming XML files for XML threats. If an XML threat is detected, EMS returns an error acknowledgment to the TP in XML format. The error acknowledgment contains a description of the XML threat. For certain detected threats, the TP is suspended. Should this occur, it will be reflected in the error acknowledgment and the TP must contact the Home SPC EMS Help Desk to request removal of the suspended status.

Two examples follow showing the format for the error acknowledgements that are returned to the TP when an XML threat is detected in the transmission. The first example is an error acknowledgement when the TP is not suspended and the second example is an error acknowledgement when the TP is suspended. Note that the second line of the file, the Content-Description, contains a plain English description of the problem; therefore, an understanding of XML is not required to interpret the message. The shaded areas contain the GTX key, a timestamp, and the XML threat. These values vary for each returned acknowledgment. The remainder of the message is constant.

Detected XML Threat - TP is not suspended

```
MIME-Version: 1.0
Content-Description: Notification that transmission file T200303211345.0100 was
rejected because it contained an XML threat
Content-Type: text/xml; charset=UTF-8
<?xml version="1.0" encoding="UTF-8"?>
<TransmissionAcknowledgement>
       <AcknowledgementTimestamp>2003-12-13T12:05:22-05:00</AcknowledgementTimestamp>
       <TransmissionStatus>R</TransmissionStatus>
       <Errors errorCount="1">
             <Error errorId="1">
                    <ErrorCategory>Unsupported</ErrorCategory>
                    <ErrorMessage><!CDATA[AN XML THREAT WAS</pre>
                    DETECTED IN THIS FILE (threat description).]]>
                    </ErrorMessage>
                    <RuleNumber>T0000-011</RuleNumber>
                    <Severity>Reject and Stop</Severity>
             </Error>
       </Errors>
       <GTXKey>T200303211345.0100</GTXKey>
</TransmissionAcknowledgement>
```

Detected XML Threat - TP is suspended

```
MIME-Version: 1.0
Content-Description: Notification that transmission file T200303211345.0100 was
rejected because it contained an XML threat
Content-Type: text/xml; charset=UTF-8
<?xml version="1.0" encoding="UTF-8"?>
<TransmissionAcknowledgement>
      <AcknowledgementTimestamp>2003-12-13T12:05:22-05:00</AcknowledgementTimestamp>
       <TransmissionStatus>R</TransmissionStatus>
      <Errors errorCount="1">
             <Error errorId="1">
                    <ErrorCategory>Unsupported</ErrorCategory>
                    <ErrorMessage><!CDATA[AN XML THREAT WAS</pre>
                    DETECTED IN THIS FILE (threat description). YOUR ACCOUNT
                    HAS BEEN SUSPENDED.]]></ErrorMessage>
                    <RuleNumber>T0000-011</RuleNumber>
                    <Severity>Reject and Stop</Severity>
             </Error>
       </Errors>
       <GTXKey>T200303211345.0100</GTXKey>
</TransmissionAcknowledgement>
```

ERROR ACKNOWLEDGMENT FORMAT FOR DECOMPRESSION FAILURES

If the TP has established a profile that uses one of the supported compression methods, then EMS will decompress the file before processing it. If there is a problem and the file fails to decompress, then the TP will receive the error acknowledgment shown below. All TPs receive the XML format acknowledgment, even if the transmission was sent using a different IRS approved format. Note that the second line of the file, the Content-Description contains a plain English description of the problem; therefore, an understanding of XML is not required to interpret the message. The shaded areas contain the GTX key and a timestamp. These values vary for each returned acknowledgment. The remainder of the message is constant.

```
MIME-Version: 1.0
Content-Description: Notification that transmission file T200303211345.0100
was rejected because it failed to decompress
Content-Type: text/xml; charset=UTF-8
<?xml version="1.0" encoding="UTF-8"?>
<TransmissionAcknowledgement>
      <AcknowledgementTimestamp>2003-12-13T12:05:22-05:00</AcknowledgementTimestamp>
      <TransmissionStatus>R</TransmissionStatus>
      <Errors errorCount="1">
             <Error errorId="1">
                    <ErrorCategory>Unsupported</ErrorCategory>
                    <ErrorMessage>EMS received your file, but could not process
                    it. Please check your file and re-transmit.</ErrorMessage>
                    <RuleNumber>T0000-010</RuleNumber>
                    <Severity>Reject and Stop</Severity>
             </Error>
      </Errors>
      <GTXKey>T200303211345.0100</GTXKey>
</TransmissionAcknowledgement>
```

ERROR ACKNOWLEDGMENT FORMAT FOR INVALID FILE FORMATS

EMS will not process Forms 94x return transmissions that are in the EDI and Proprietary (MGT) formats. If the TP submits a file that EMS cannot recognize as IRS proprietary, combined state ack or XML format, the following XML error acknowledgment is generated. All TPs receive the XML format acknowledgment. Note that the second line of the file, the Content-Description, contains a plain English description of the problem; therefore, an understanding of XML is not required to interpret the message. The shaded areas contain the GTX key and a timestamp. These values vary for each returned acknowledgment. The remainder of the message is constant.

```
MIME-Version: 1.0
Content-Description: Notification that transmission file T200303211345.0100 was
rejected because it is not in acceptable format
Content-Type: text/xml; charset=UTF-8
<?xml version="1.0" encoding="UTF-8"?>
<TransmissionAcknowledgement>
      <AcknowledgementTimestamp>2003-12-13T12:05:22-05:00</AcknowledgementTimestamp>
       <TransmissionStatus>R</TransmissionStatus>
       <Errors errorCount="1">
             <Error errorId="1">
                    <ErrorCategory>Unsupported</ErrorCategory>
                    <ErrorMessage>Transmission file not in acceptable
                      format</ErrorMessage>
                    <RuleNumber>T0000-500</RuleNumber>
                    <Severity>Reject and Stop</Severity>
             </Error>
      </Errors>
      <GTXKey>T200303211345.0100</GTXKey>
</TransmissionAcknowledgement>
```

ERROR ACKNOWLEDGMENT FORMAT FOR FORMAT NOT VALID FOR TRANSMITTER

If the TP submits a file in an EMS-recognized format but the TP is not registered to send forms in the submitted format, the following XML error acknowledgment is generated. All TPs receive the XML format acknowledgment. Note that the second line of the file, the Content-Description, contains a plain English description of the problem; therefore, an understanding of XML is not required to interpret the message. The shaded areas contain the format of the submitted file, the GTX key and a timestamp. These values vary for each returned acknowledgment. "<format>" is replaced by either "Proprietary" or "XML". The remainder of the message is constant.

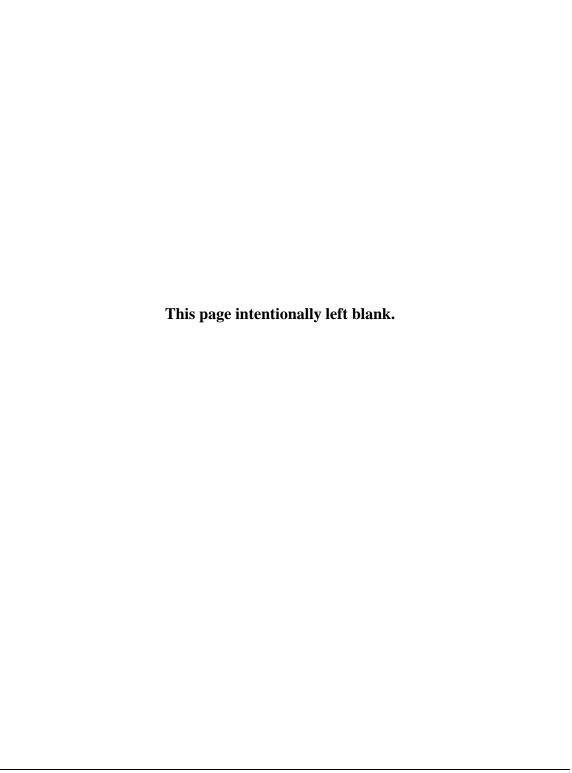
```
MIME-Version: 1.0
Content-Description: Notification that transmission file XYYYYMMDDHHSS.NNNN was
rejected because <format> format not valid for transmitter
Content-Type: text/xml; charset=UTF-8
<?xml version="1.0" encoding="UTF-8"?>
<TransmissionAcknowledgement>
      <AcknowledgementTimestamp>2003-12-13T12:05:22-05:00</AcknowledgementTimestamp>
      <TransmissionStatus>R</TransmissionStatus>
      <Errors errorCount="1">
             <Error errorId="1">
                    <ErrorCategory>Unsupported</ErrorCategory>
                    <ErrorMessage> Transmission file in <format> format not
                     valid for transmitter</ErrorMessage>
                    <RuleNumber>T0000-501</RuleNumber>
                    <Severity>Reject and Stop</Severity>
             </Error>
      </Errors>
      <GTXKey>XYYYYMMDDHHMMSS.NNNN</GTXKey>
</TransmissionAcknowledgement>
```

${\bf Appendix} \ {\bf C}$ ${\bf EMS} \ {\bf Communications} \ {\bf and} \ {\bf Encryption}$



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EMS COMMUNICATIONS AND ENCRYPTION

EMS can accept tax returns and tax documents via a non-Webbased Internet solution or via dedicated leased lines as described below. Since December 2005, IRS-provided analog and ISDN lines were removed. However, it may be possible for a TP to use ISDN if he/she provides his/her own equipment.

C.1 INTERNET SERVICE

To use the Internet service, a TP accesses EMS via his/her own Internet Service Provider (ISP) and does not need to have a static IP address. However, the TP must use Secure Socket Layer (SSL) with Telnet/S layered on top of it. His/her Telnet/SSL software must conform to:

- RFC 854 Telnet Protocol Specification
- SSL 3.0 Specification (http://wp.netscape.com/eng/ssl3)

The Telnet/SSL traffic must be transmitted to EMS on TCP port 992. The TP may need to configure his/her firewall(s) to allow this traffic to pass through. This has been the most common cause of failure to connect to EMS through the Internet. Most businesses routinely block traffic on ports not commonly used for security reasons. The TP connects to EMS using one of the following fully qualified Domain Name Service (DNS) names.

- efileA.ems.irs.gov
- efileB.ems.irs.gov
- efileC.ems.irs.gov

The EMS URL Chart with specific returns and dates, and the processing schedules for draining the test and production transmissions for processing are found on www.irs.gov.

If the TP's software allows him/her to establish concurrent sessions to the same computing center, the TP may submit files over multiple concurrent sessions. However, only one session can retrieve acknowledgment files. TPs should note that FTP is not available as a file transfer protocol when using the Internet service.

Configuring Terminal Emulation Software

A TP may need to provide the following information when he/she is configuring their terminal emulation software.

- Terminal Name. Should be something meaningful to the TP. This information is not transmitted to EMS.
- Terminal Type. Select a member of the Virtual Terminal (VT) family (e.g., VT100 or VT220).
- SSL Version. SSL3. In many terminal emulation packages this is a pull-down menu beside the Destination or Host

Name and is not labeled. TLS-1 defaults since it is the latest SSL version but SSL-3 must be chosen.

- Port. 992. This port number is often filled in automatically by the terminal emulation software if Telnet/SSL is chosen.
- **Destination or Host Name**. One of the fully qualified names listed previously.
- Destination Host Type. Unix.
- User Certificate Mode. No user certificate is required. However, EMS accepts any certificate from the TP. If the TP wants to send a certificate, it can be self-generated.
- Host Certificate. EMS sends an Entrust certificate, which the terminal emulation software must accept.
- Certificate Viewing. If the TP wants to see the certificates being exchanged and the terminal emulation software supports certificate viewing, then this feature should be turned on.
- Operating System (OS). If your terminal emulation software asks for an OS, it is asking about the Trading Partner's system, not the EMS system. Enter the local system parameters upon which the terminal emulation software will be running.
- Data Characters. Please specify eight bit data characters if your terminal emulation software does not default to it.

The IRS has tested several terminal emulation software packages supporting Telnet-SSL including PowerTerm Pro Enterprise for Unix Version 8.8.3, Hummingbird Exceed, and Attachmate. Many other commercial and open-source packages can also be used as long as they support the Telnet specification RFC 854 and the SSL 3.0 specification. If a TP cannot successfully connect using an internally developed package we recommend using one of the above packages, which can often be evaluated free, to verify the connectivity parameters outlined above. Additional guidance is given in C.3 and C.4.

C.2 DEDICATED/LEASED LINE SERVICE

Use of dedicated/leased line services requires authorization from the IRS. Please contact Darryl Giles at (202) 283-5193, e-mail darryl.s.giles@irs.gov.

As of November 1, 2005, all dedicated lines must be encrypted using at least 128-bit encryption provided by a Federal Information Processing Standards (FIPS) approved method. A TP, using the dedicated/leased line service, is responsible for choosing, procuring, and installing his/her cryptographic solution. To determine if a cryptographic solution meets FIPS standards obtain the "NIST Validation List Certification Number and Date" from the solution

provider. This information can be verified by checking the NIST website at http://csrc.nist.gov/cryptval/. There are validation lists for each major FIPS Cryptographic Standard. Each list has a sequence number, and lists the manufacturer/supplier, date of validation, name of the implementation, its operational environment, and a further description of other characteristics.

The IRS recommends the use of Internet Protocol Security (IPsec) as the cryptographic solution for the dedicated/leased line service.

The following paragraphs describe the hardware and software necessary to use the dedicated/leased line service.

C.2.1 DEDICATED/LEASED LINES

For a TP to connect over a dedicated line he/she must purchase the circuit. Once the TP's request for dedicated/leased line service is approved, the IRS provides him/her with IP addressing and routing information.

C.2.2 COMMUNICATION SERVICES

Connection to the EMS system using the dedicated/leased line services provide the TP with a Transmission Control Protocol/Internet Protocol (TCP/IP) interface. To use this service the TP must have the following:

- A system that supports the TCP/IP protocols.
- The ability to make a Telnet connection from his/her system to an EMS host.
- If the TP plans to use the File Transfer Protocol (FTP) for data transfer, his/her system must support an FTP server and have the ability to accept an FTP connection from the EMS. The TP must supply a user logon and password for the EMS system to use when connecting to his/her FTP server.
- A pair of routers capable of supporting communication over the digital circuit procured by the TP.

Once the TP establishes a connection using EMS dedicated/leased line services the following capabilities are available.

- Connecting over a TCP/IP link allows a TP to connect to any host available to him/her at the computing center.
- Backup protection. EMS systems have a failover capability and if there is a system failure a backup system becomes available. However, TPs may need to reconfigure their routers and their communication servers if they have not initially configured them to communicate with the backup system as well as the primary system.
- Transfer of data using FTP. If a TP has a host system that supports FTP, he/she may use this as a protocol to send and receive files to the EMS system. For TPs using this transfer method the only configuration needed is to setup a user account for EMS to use and directories for

EMS to use to "get" return files and "put" acknowledgment files. EMS transmits one file for each acknowledgment file available for processing. The file transfers are binary and the "#" hash mark is displayed for every 1,024 bytes of data transferred.

- File transfers over Telnet. If a TP uses TCP/IP to connect to the EMS system, his/her logon to the system is through Telnet. If the TP does not want to use FTP to transfer files, he/she may use another file transfer protocol such as Zmodem over the Telnet session. This capability is currently available in many of the Telnet application programs. The file transfer rate of Zmodem over a Telnet session is not as fast as FTP. See Sections C.3 and C.4 for more details.
- One final aspect of a TCP/IP connection to the EMS is that TCP/IP supports multiple simultaneous connections to the same host or multiple hosts. A TP may submit files over multiple concurrent sessions. However, only one session per host can retrieve acknowledgment files.

C.3 TELNET OPTIONS

If the TP uses Zmodem, Xmodem-1K, or Ymodem-batch to transfer files over the Telnet session, to be successful the TP's Telnet program must support connections that allow all eight bits of the data to pass through. This is often accomplished on the Telnet command line as "telnet -8 host". If the TP uses the "telnet -8" method, the screen display may appear distorted and after typing in the TP identification information the systems appears to be hung. If this occurs the TP should terminate his/her responses with a Line-Feed Character. On a standard keyboard, depressing the Control Key and the "j" key at the same time generates this character. As an alternative to the "telnet -8" option, the TP may set binary mode before beginning a file transfer and unset binary mode upon completion of the transfer.

Most versions of Telnet have a sequence of characters (called an Escape Sequence) that, when encountered by the Telnet program, interrupts the Telnet session. Unless hidden by the TPs terminal emulation software, the TP normally sees a message displaying the Escape Sequence when the Telnet connection is first started. Although it is possible for the TP to have a successful session when an Escape Sequence exists, at some point a file transfer may abort based on its size or the data in the file. For this reason it is recommended that the Escape Sequence be disabled, if possible. The TP should check his/her Telnet documentation to determine how to do this.

C.4 ZMODEM OPTIONS

The most common file transfer software used over the Telnet Session is Zmodem. The package consists of the "sz" command for sending files and the "rz" command for receiving files. As with the Telnet session options described in Section C.3, there are options that may need to be invoked to achieve a successful file transfer. In addition, it is important to note that these options are not necessarily mutually exclusive from the Telnet options. It may be that having a specific Zmodem option set might mean that a Telnet option

does not need to be invoked. It is recommended that TPs explore the Zmodem options first. These options are available if the TP is experiencing problems:

- Zmodem Escape Control Characters. This option, usually "-e", will have Zmodem watch for control characters and modify them so that they pass through undetected as control characters. The option is sometimes available on both the "sz" and "rz" commands. Other versions have the -e option available only on the "rz".
- Zmodem Binary. This is another option available on some versions of Zmodem. The TP should check his/her documentation for any option that attempts to make the link transparent to control character sequences.
- Zmodem Timeout Values. Within Zmodem there are options for how long to wait for an expected packet of data. The default is normally 10 seconds. In most cases, this value should be acceptable. However, the TP should never set these values to wait forever.
- Zmodem buffer timeout. There may be times when the timeout values may need to be changed. This can occur with TPs, whose connection to their ISP is through a Because of the buffering ability of dial-up line. equipment and the amount telecommunications communications equipment usually in place for an Internet connection, the amount of data that can be stored could cause an error. This can happen if a file that is to be transmitted is approximately the same size as one of the buffers present in the data link. sending program will have completed the streaming of all the data in the file but the receiving side may not have gotten any data yet. If the sending side has its receive packet timeout set too low, it may timeout before the receiver can receive and transmit the packet.
- Zmodem sliding window. If this option is not enabled, the sender transmits all of a file without waiting for an acknowledgment. This results in a faster file transfer. However, some of the intermediate communications equipment may store data while it is transferred to the receiver. Sometimes this causes the sender to "get ahead" of the receiver. In this case, the TP may need to enable the sliding window option. This results in intermediate acknowledgments and a slower file transfer. The smaller the value of the sliding window setting the slower the file transfer.
- Zmodem Debugging. When testing the TP's Internet connectivity, the TP should become familiar with the debug capabilities of his/her Zmodem software. If the TP experiences problems with the transfer of data, generating a debug file could assist the TP and IRS system support personnel in determining the nature of the problem.

• Crash Recovery. EMS does not retain partial files. Therefore, if a transmission to EMS is interrupted, the TP must retransmit from the beginning of the file. For acknowledgment files and state return files, EMS can resume the transmission from where the interruption occurred in the transmission if the TP's software supports it.

Appendix D

Examples of Transmission Status Reports (Browser and Text Displays)



EXAMPLES OF TRANSMISSION STATUS REPORTS

 $$\operatorname{\textsc{This}}$$ section shows the following examples of a Transmission Status Report:

- Exhibit D-1 Browser View of State Transmission Report (When No Data is Available)
- Exhibit D-2 Text View of State Transmission Report (When No Data is Available)
- Exhibit D-3 Browser View of State Transmission Report
- Exhibit D-4 Text View of State Transmission Report
- Exhibit D-5 Excel Spreadsheet View of State Transmission Report
- Exhibit D-6 Browser View of TP Transmission Report

The Transmission Status Report is returned to the TP within a file that is suitable for display with a Web browser. The file can also be imported into newer versions of Excel as an Excel spreadsheet. The file name is MMDDhhmm_rpt.html where MM=month, DD=day, hh=hour, and mm=minute. If the TP had previously requested Unix file compression, the file name would be MMDDhhmm_rpt.html.Z. If the TP has previously selected GZIP compression, the file name would be MMDDhhmm_rpt.html.GZ. Some file transfer protocols or operating systems may translate the "Z" or "GZ" to lowercase "z" or "gz."

| ECC-MEM State Transmission Report for ETIN: 05003 2004-03-02 00:00 - 2004-06-10 11:33 | | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| mission File Name | | | | | | | | |
| | | | | | | | | |

Exhibit D-1 Browser View of State Transmission Report (When No Data is Available)

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet href="W3C-REC.css" type="text/css"?>
<?xml-stylesheet href="#baseInternalStyle" type="text/css"?>
<!DOCTYPE html
   PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html lang="en" xml:lang="en" xmlns="http://www.w3.org/1999/xhtml">
 <!-- Generated by EEC XmsnRptSvc -->
 <head>
  <meta name="Author" content="EEC XmsnRptSvc" />
  <meta http-equiv="Content-type" content="application/xhtml+xml; charset=UTF-8"</pre>
  <meta http-equiv="Content-Style-Type" content="text/css" />
    ECC-MEM State Transmission Report for ETIN: 05003 — 2004-03-02 00:00
– 2004-06-10 11:33
  </title>
 </head>
 <body>
  summary="Transmission Status Report of Acknowledgements for State ACK files
submitted at ECC-MEM by State ETIN 05003.">
    <caption>
     <strong>
       ECC-MEM State Transmission Report for ETIN: 05003
       2004-03-02 00:00 – 2004-06-10 11:33
     </strong>
     <br />
      
    </caption>
    <thead>
     Transmission File Name
       TP ETIN
       TP ACK File Name
       ACK Reference File Name
       Transmission Status
       Test/ Production
       </t.h>
```

Exhibit D-2 Text View of State Transmission Report (When No Data is Available)

```
Status Time
   </thead>
 <big>
    No data available for reporting period
    </em>
   </big>
   </body>
</html>
```

Exhibit D-2 Text View of State Transmission Report (When No Data is Available) (A)

| ECC-MEM State Transmission Report for ETIN: 88888 2004-03-02 00:00 – 2004-06-10 11:33 | | | | | | | | |
|--|--------------------------|----------------------------|------------------------|---------------------|----------------|----------------|--|--|
| Transmission File Name | TP TP ACK File Name | ACK Reference File Name | Transmission Status | Test/ Production | Status Date | Status Time | | |
| T20040304100001.7700 | | 03040010.ACK | Waiting State Delivery | T | 2004-03- 04 | 10:20 | | |
| T20040304100001.7700 | 99998 T20040304100214.10 | 00 03040001.SMD | Waiting TP Delivery | T | 2004-03- 04 | 10:05 | | |
| T20040304100001.7700 | 99999 T20040304100315.77 | 00 03040110.SMD | Waiting TP Delivery | T | 2004-03- 04 | 10:05 | | |
| T20040305120011.0001 | | 03050211.ACK | Received by State | P | 2004-03- 05 | 20:00 | | |
| T20040305120011.0001 | 99992 T20040305120400.00 | 00 03050112.SMD | Waiting TP Delivery | P | 2004-03- 05 | 20:00 | | |
| T20040305120011.0001 | 99999 T20040305120301.00 | 01 03050111.SMD | Received by TP | P | 2004-03- 05 | 20:00 | | |
| T20040305121524.8800 | | 03051200.NAK | Waiting State Delivery | P | 2004-03- 05 | 12:16 | | |

Exhibit D-3 Browser View of State Transmission Report

TRANSMISSION STATUS DEFINITIONS

State Transmission Report

| Waiting State Delivery | The acknowledgment for a State Transmission is available for the state to pick up. |
|---------------------------|--|
| Received by State | The acknowledgment for a State Transmission has been received by the state. |
| In Progress | The State Transmission file was received by EMS and is being processed. |
| Waiting TP Delivery | The acknowledgment is available for the TP to pick up. |
| Received by TP | The acknowledgment has been received by the TP. |

Text for Exhibit D-3 is displayed in HTML format.

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet href="W3C-REC.css" type="text/css"?>
<?xml-stylesheet href="#baseInternalStyle" type="text/css"?>
<!DOCTYPE html
   PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html lang="en" xml:lang="en" xmlns="http://www.w3.org/1999/xhtml">
 <!-- Generated by EEC XmsnRptSvc -->
 <head>
  <meta name="Author" content="EEC XmsnRptSvc" />
  <meta http-equiv="Content-type" content="application/xhtml+xml; charset=UTF-8"</pre>
  <meta http-equiv="Content-Style-Type" content="text/css" />
    ECC-MEM State Transmission Report for ETIN: 88888 — 2004-03-02 00:00
– 2004-06-10 11:33
  </title>
 </head>
 <body>
  summary="Transmission Status Report of Acknowledgements for State ACK files
submitted at ECC-MEM by State ETIN 88888.">
    <caption>
     <strong>
      ECC-MEM State Transmission Report for ETIN: 88888
      <br />
      2004-03-02 00:00 – 2004-06-10 11:33
     </strong>
     <br />
      
    </caption>
    <thead>
     Transmission File Name
      TP ETIN
      TP ACK File Name
      ACK Reference File Name
      Transmission Status
      Test/ Production
      Status Date
      Status Time
      </thead>
```

Exhibit D-4 Text View of State Transmission Report

```
T20040304100001.7700
03040010.ACK
Waiting State Delivery
2004-03-04
10:20
T20040304100001.7700
99998
T20040304100214.1000
03040001.SMD
Waiting TP Delivery
Т
2004-03-04
10:05
T20040304100001.7700
99999
```

Exhibit D-4 Text View of State Transmission Report (A)

```
T20040304100315.7700
03040110.SMD
Waiting TP Delivery
2004-03-04
10:05
T20040305120011.0001
03050211.ACK
Received by State
Ρ
2004-03-05
20:00
T20040305120011.0001
99992
T20040305120400.0000
03050112.SMD
Waiting TP Delivery
Ρ
```

Exhibit D-4 Text View of State Transmission Report (B)

```
2004-03-05
  20:00
  T20040305120011.0001
  99999
  T20040305120301.0001
  03050111.SMD
  Received by TP
  2004-03-05
  20:00
  T20040305121524.8800
  03051200.NAK
  Waiting State Delivery
  Ρ
  2004-03-05
  12:16
  </body>
</html>
```

Exhibit D-4 Text View of State Transmission Report (C)

| ECC-MEM State Transmission Report for ETIN: 88888 | | | | | | | | | | |
|---|---------|----------------------|-------------------------|------------------------|------------------|-------------|-------------|--|--|--|
| 2004-03-02 00:00 – 2004-06-10 11:33 | | | | | | | | | | |
| | | | | | | | | | | |
| Transmission File Name | TP ETIN | TP ACK File Name | ACK Reference File Name | Transmission Status | Test/ Production | Status Date | Status Time | | | |
| T20040304100001.7700 | | | 03040010.ACK | Waiting State Delivery | T | 3/4/2004 | 10:20 | | | |
| T20040304100001.7700 | 99998 | T20040304100214.1000 | 03040001.SMD | Waiting TP Delivery | T | 3/4/2004 | 10:05 | | | |
| T20040304100001.7700 | 99999 | T20040304100315.7700 | 03040110.SMD | Waiting TP Delivery | T | 3/4/2004 | 10:05 | | | |
| T20040305120011.0001 | | | 03050211.ACK | Received by State | Р | 3/5/2004 | 20:00 | | | |
| T20040305120011.0001 | 99992 | T20040305120400.0000 | 03050112.SMD | Waiting TP Delivery | Р | 3/5/2004 | 20:00 | | | |
| T20040305120011.0001 | 99999 | T20040305120301.0001 | 03050111.SMD | Received by TP | Р | 3/5/2004 | 20:00 | | | |
| T20040305121524.8800 | | | 03051200.NAK | Waiting State Delivery | P | 3/5/2004 | 12:16 | | | |

Exhibit D-5 Excel Spreadsheet View of State Transmission Report

| TP Transmission Report for ETIN: 39969 2005-04-08 00:00 - 2005-04-13 14:55 | | | | | | | | |
|---|-------------------------|---------------|--------|-----------|-----|-------------|-----------|--|
| Transmission File Name | ACK Reference File Name | Transmission | Status | Form Type | T/P | Status Date | Status Ti | |
| D20050411113022.9042 | | In Progress | | | | 11-APR-05 | | |
| D20050411120355.1354 | | In Progress | | | | 11-APR-05 | | |
| D20050411123423.9804 | | In Progress | | | | 11-APR-05 | | |
| D20050411145414.0042 | 04110004.NAK | Received by T | Р | | | 11-APR-05 | | |
| D20050411153307.0985 | 04110005.ACK | Received by T | Р | 1040 | T | 12-APR-05 | | |
| D20050413141423.5857 | 04130008.ACK | Received by T | Р | 1040 | T | 13-APR-05 | | |

Exhibit D-6 Browser View of TP Transmission Report

TRANSMISSION STATUS DEFINITIONS

TP Transmission Status Report

| Waiting TP Delivery | The acknowledgment is available for the TP to |
|---------------------|---|
| | pick up. |
| Received by TP | The acknowledgment has been received by the TP. |
| In Progress | EMS has received and is processing the file. |



${\bf Appendix} \ {\bf E}$ ${\bf Guidelines} \ {\bf for} \ {\bf Trading} \ {\bf Partners} \ {\bf Using} \ {\bf EMS}$



GUIDELINES FOR TRADING PARTNERS USING EMS

While the following information is provided primarily for those who use scripts to control interaction with EMS, it is also useful for individuals who login and conduct their sessions "manually."

- 1. Use *pattern matching*, *not timers*, to control the flow of scripts. Scripts should be able to handle all messages and prompts from EMS, not just the main "retrieve acknowledgment" and "submit a file" paths. See Appendix F for an example of a script that is entirely controlled by simple pattern-matching.
- 2. If it is absolutely necessary to use a timer when waiting for a message or prompt, then the timer value should not be less than 100 seconds. EMS always sends a response within 100 seconds (worst case) after the last user-interaction (EMS prompt or user response). The timer in the script should function only as a "fail-safe" device in case of unanticipated system behavior.
- 3. Log off using the "Logoff" menu option on the main menu, instead of simply hanging up. Do not hang up until the "DISCONNECTING FROM EFS" message has been received. This is true for both scripted and human interaction with EMS.
- 4. When a message is received indicating that EMS is unavailable, don't try again immediately. Wait at least 10 minutes.
- 5. Do not login repeatedly when there is no work to do (i.e., no files to submit or acknowledgments to pick up). In most cases, EMS provides a negative acknowledgment within 10 minutes of submission if the file is not accepted for further processing. If EMS has not provided a negative acknowledgment within 35 minutes, the file, except in rare circumstances, has been forwarded to the appropriate tax-return-processing system. For MeF and 94X files, which are forwarded immediately to the tax-return-processing system, acknowledgments are available shortly after that system has processed each file. For files that are batched and "drained" at published times, acknowledgments from the tax-return-processing system will not be available for hours.
- 6. If a TP has multiple concurrent sessions at the same physical site using the same EMS Login ID, only one session will retrieve acknowledgments. Unless the other sessions are used to submit files, they will not accomplish any useful work.



$\label{eq:Appendix F} \textbf{Example Script to Pick Up Acks and Send a File}$



EXAMPLE SCRIPT TO PICK UP ACKS AND SEND A FILE

The following example is meant to illustrate how a script can communicate with EMS using only pattern-matching to control logic flow. The example is for reference only, and is not intended for actual use by trading partners.

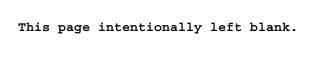
This particular script is written in "expect", designed for a Unix operating system, and takes advantage of expect's ability to specify a set of strings and events to be watched for if there is a failure to match the string that is anticipated. It also assumes that files are to be sent and received using the FTP protocol. A script that instead used the Zmodem protocol, for example, would differ noticeably in those parts of the script that accomplish the actual sending and receiving of files.

Most "expect" commands and syntax appearing in the script are reasonably intuitive, at least for the limited purposes of illustration for which this script is intended. But it is worth mentioning that the command "send" directs output to the telnet session, while the command "send_user" directs output to "standard output", which is assumed to be directed to a local log file. Lines beginning with "#" are comments.

```
#!/opt/sfw/bin/expect -f $1 $2 $3 $4 $5 $6
#Assign command-line parameters to local variables for convenience.
set log_id [lrange $argv 0 0]
set passwd [lrange $argv 1 1]
set hostid [lrange $argv 2 2]
set retfil
           [lrange $argv 3 3]
set prtocl [lrange $argv 4 4]
set compid [lrange $argv 5 5]
# Slow down "typing" of replies to allow for modem turnaround delays.
set send_slow {1 .1}
# Start a C-shell in which to run telnet
spawn /usr/bin/csh
# Specify set of "secondary" strings/events to be watched for if anticipated match fails.
# These messages and events could occur at any time during processing.
  message: "EFS is down"
   message: "DISCONNECTING FROM EFS"
   event: eof (telnet session was terminated for any reason, e.g., EMS disconnects)
expect_after {
            EFS is busy. Wait at least 10 minutes, then retry." {
-exact "
               send_user "got the EFS BUSY message (abort) \n"
               exit }
-exact "
            EFS is currently unavailable. Additional information may be available on
IRS quick alerts. " {
               send_user "got the EFS UNAVAILABLE message (abort) \n"
               exit }
-exact "EFS DISCONNECTING FROM EFS" {
               send_user "got the DISCONNECTING message (abort) \n"
       eof
               send_user "tp_client disconnected (abort) \n"
}
```

```
# When C-shell prompt appears,
   Start a telnet session to the designated computer (hostid)
  Exit the C-shell when the telnet session exits (even if that
# occurs before the script runs to completion)
expect -exact "%
sleep .1
send -s -- "telnet $hostid; exit\r"
# When login prompt from EMS is received, send username (log_id).
expect -exact "login: "
sleep .2
send -s -- "$log_id\r"
#When password prompt from EMS is received, send password (passwd)
expect -exact "Password:"
sleep .2
send -s -- "$passwd\r"
#When MAIN MENU choice-prompt from EMS is received,
#send 3 (Change File Transfer Protocol)
expect -exact "
                  Enter your choice: "
sleep .2
send -s -- "3\r"
#When FILE TRANSFERS PROTOTCOL MENU choice-prompt from EMS is received,
#send protocol to use (prtocl)
expect -exact "
                  Enter your choice: "
sleep .2
send -s -- "prtocl\r"
#When MAIN MENU choice-prompt from EMS is received,
#send 4 (Change Compression Method)
                   Enter your choice: "
expect -exact "
sleep .2
send -s -- "4\r"
#When COMPRESSION METHODS MENU choice-prompt from EMS is received,
#send compression to use (compid)
expect -exact "
                 Enter your choice: "
sleep .2
send -s -- "$compid\r"
#When MAIN MENU choice-prompt from EMS is received,
#send 2 (Receive/Send File(s))
expect -exact "
                 Enter your choice: "
sleep .2
send -s -- "2\r"
#If there are acks to pick up, EMS will prompt for the TP to receive them.
#If not, or after they have been picked up, EMS will prompt to allow sending a file.
#The logic below handles both possibilities.
\# {\rm If} there are files to pick up, the logic responds "\gamma" to receive them.
#After they are received, it responds "y" to the prompt for sending a file,
#then responds with the local filename to be sent, because this script assumes
#that the FTP protocol is being used.
#If there are not any files to pick up, the logic responds "y" to the prompt for sending
#a file, then responds with the local filename to be sent, because this script assumes
#that the FTP protocol is being used.
expect {
-exact "
             Are you ready to receive files? Y/[N]: " {
                  sleep .2
                   send -s -- "y\r"
                   expect -exact "
                                       Do you want to send a file? Y/[N]: "
                   sleep .2
                   send -s -- "y\r"
                   expect -exact "
                                      are sending from your system: "
                   sleep .2
                   send -s -- "$retfil\r"
```

```
Do you want to send a file? Y/[N]: " {
-exact "
                  sleep .2
                  send -s -- "y\r"
                  expect -exact "
                                     are sending from your system: "
                  sleep .2
                  send -s -- "$retfil\r"
}
#The send_user command writes a message into the TP's local log file
send_user "after send file looking for choice \n "
#When MAIN MENU choice-prompt from EMS is received, send 1 (Logoff).
#After "DISCONNECTING FROM EFS" message is received from EMS, send exit command to telnet
expect {
expect -exact "
                  Enter your choice: " {
                  sleep .2
                  send -s -- "1\r"
                  send_user "answered 1 to choice\n"
                  expect -exact "DISCONNECTING FROM EFS"
                  send_user "got normal disconnect message \n"
                  exit
}
#Exit from the script
exit
```



Appendix G EMS Password Rules



EMS Password Rules

A trading partner's password must conform to the following rules.

- 1. Passwords must be 8 characters long.
- 2. Passwords must contain:
 - a. at least one uppercase alphabetic character,
 - b. at least one lowercase alphabetic character and
 - c. at least one numeric or special character.
- 3. Allowable special characters are:

| Exclamation Point | ! | Less Than Sign | < |
|-------------------|----|----------------------|---|
| Pound Sign | # | Equal Sign | = |
| Dollar Sign | \$ | Greater Than Sign | > |
| Percent Sign | % | Question Mark | ? |
| Ampersand | & | At Sign | @ |
| Left Parenthesis | (| Left Square Bracket | [|
| Right Parenthesis |) | Right Square Bracket |] |
| Asterisk | * | Underscore | _ |
| Plus Sign | + | Right Curly Brace | } |
| Comma | , | Left Curly Brace | { |
| Hyphen | - | Vertical Bar | |
| Period | | Tilde | ~ |
| Slash | / | | |
| Colon | : | | |
| Semi-colon | ; | | |

- 4. Passwords must not contain:
 - a. the login ID
 - b. reverse shift of the login ID
 - c. circular shift of the login ID
 - d. different upper/lower case version of the login ID
- 5. A new password must differ by at least three characters from the current password.
- 6. A new password must not match any password (the last five) in the TP's EMS-maintained password history.
- 7. Passwords shall expire every 90 days.
- 8. Passwords cannot be changed within the first 7 days of the last password change.

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Appendix H EMS Password Screen Shots



The following represents sample screen shots for logging onto the system and being required to change the password functionality. For more explanation refer to the exhibit referenced in Section 3 Logging On To the System.

This screen shot represents Exhibit 3-3 when there are "n" amount of days left before the password expires.

```
WARNING! THIS SYSTEM IS FOR AUTHORIZED USE ONLY!

This computer system is the property of the United States Government. The Government may monitor any activity on the system and retrieve any information stored within the system. By accessing and using this system, you are consenting to such monitoring and information retrieval for law enforcement and other purposes. Users should have no expectation of privacy as to communication on or stored within the system, including information stored locally on the hard drive or other media in use within the unit (e.g., floppy disks, tapes, CD-ROMs, etc.).

login: xxxxxxxx

Password:

Password must be charged in 5 day(s)
```

Password must be changed in 5 day(s).

Last login: Tue Oct 11 16:13:12 from 10.10.220.70

FOR OFFICIAL USE ONLY

```
# ##### ####
# # # #
# # ####
# ##### #
# # # #
```

U.S. Government computer

FOR OFFICIAL USE ONLY

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password

Exhibit H-1 Password Change in N Days

Upon an initial login or in the event that the password has expired, a password change is required. This screen shot represents Exhibit 3-5 the password change is successful.

WARNING! THIS SYSTEM IS FOR AUTHORIZED USE ONLY!

This computer system is the property of the United States Government. The Government may monitor any activity on the system and retrieve any information stored within the system. By accessing and using this system, you are consenting to such monitoring and information retrieval for law enforcement and other purposes. Users should have no expectation of privacy as to communication on or stored within the system, including information stored locally on the hard drive or other media in use within the unit (e.g., floppy disks, tapes, CD-ROMs, etc.).

login: xxxxxxx
Password:
Enter new password:
Re-enter new password:
Password changed.

FOR OFFICIAL USE ONLY

####

U.S. Government computer

FOR OFFICIAL USE ONLY

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [NONE]
- 5) Request Transmission Status Report
- 6) Change Password

Exhibit H-2 Password Change Confirmation

This screen shot represents Exhibit 3-6 when the new password and the reentered password do not match. After three (3) consecutive unsuccessful attempts the connection is terminated.

WARNING! THIS SYSTEM IS FOR AUTHORIZED USE ONLY!

This computer system is the property of the United States Government. The Government may monitor any activity on the system and retrieve any information stored within the system. By accessing and using this system, you are consenting to such monitoring and information retrieval for law enforcement and other purposes. Users should have no expectation of privacy as to communication on or stored within the system, including information stored locally on the hard drive or other media in use within the unit (e.g., floppy disks, tapes, CD-ROMs, etc.).

login: xxxxxxx
Password:
Enter new password:
Re-enter new password:
New passwords don't match.
Enter new password:
Re-enter new password:
New passwords don't match.
Enter new password:
Re-enter new password:
New passwords don't match.

Exhibit H-3 Unmatched New Passwords Message

This screen shot represents Exhibit 3--7 when the password does not satisfy password rule requirements.

WARNING! THIS SYSTEM IS FOR AUTHORIZED USE ONLY!

This computer system is the property of the United States Government. The Government may monitor any activity on the system and retrieve any information stored within the system. By accessing and using this system, you are consenting to such monitoring and information retrieval for law enforcement and other purposes. Users should have no expectation of privacy as to communication on or stored within the system, including information stored locally on the hard drive or other media in use within the unit (e.g., floppy disks, tapes, CD-ROMs, etc.).

login: xxxxxxx
Password:
Enter new password:
Re-enter new password:
Password rule(s) have not been met.
Enter new password:
Re-enter new password

Exhibit H-4 Password Rule Violation Message

This screen shot represents Exhibit 3-8 attempting to change the password when another session is changing the password.

WARNING! THIS SYSTEM IS FOR AUTHORIZED USE ONLY!

This computer system is the property of the United States Government. The Government may monitor any activity on the system and retrieve any information stored within the system. By accessing and using this system, you are consenting to such monitoring and information retrieval for law enforcement and other purposes. Users should have no expectation of privacy as to communication on or stored within the system, including information stored locally on the hard drive or other media in use within the unit (e.g., floppy disks, tapes, CD-ROMs, etc.).

login: xxxxxxxx
Password:

Login failed. Another session is trying to change the password.

Exhibit H-5 Another Login Session Changing Password Message

This screen shot represents Exhibit 3-9 when there is a system error.

WARNING! THIS SYSTEM IS FOR AUTHORIZED USE ONLY!

This computer system is the property of the United States Government. The Government may monitor any activity on the system and retrieve any information stored within the system. By accessing and using this system, you are consenting to such monitoring and information retrieval for law enforcement and other purposes. Users should have no expectation of privacy as to communication on or stored within the system, including information stored locally on the hard drive or other media in use within the unit (e.g., floppy disks, tapes, CD-ROMs, etc.).

login: xxxxxxx
Password:
System error.

Exhibit H-6 System Error Message

This screen shot represents Exhibit 3-10 when an incorrect EMS Login ID or password is entered. After three (3) consecutive unsuccessful attempts the connection is terminated.

WARNING! THIS SYSTEM IS FOR AUTHORIZED USE ONLY!

This computer system is the property of the United States Government. The Government may monitor any activity on the system and retrieve any information stored within the system. By accessing and using this system, you are consenting to such monitoring and information retrieval for law enforcement and other purposes. Users should have no expectation of privacy as to communication on or stored within the system, including information stored locally on the hard drive or other media in use within the unit (e.g., floppy disks, tapes, CD-ROMs, etc.).

login: xxxxxxx
Password:
Login incorrect

WARNING! THIS SYSTEM IS FOR AUTHORIZED USE ONLY!

This computer system is the property of the United States Government. The Government may monitor any activity on the system and retrieve any information stored within the system. By accessing and using this system, you are consenting to such monitoring and information retrieval for law enforcement and other purposes. Users should have no expectation of privacy as to communication on or stored within the system, including information stored locally on the hard drive or other media in use within the unit (e.g., floppy disks, tapes, CD-ROMs, etc.).

login: xxxxxxx
Password:
Login incorrect

WARNING! THIS SYSTEM IS FOR AUTHORIZED USE ONLY!

This computer system is the property of the United States Government. The Government may monitor any activity on the system and retrieve any information stored within the system. By accessing and using this system, you are consenting to such monitoring and information retrieval for law enforcement and other purposes. Users should have no expectation of privacy as to communication on or stored within the system, including information stored locally on the hard drive or other media in use within the unit (e.g., floppy disks, tapes, CD-ROMs, etc.).

login: xxxxxxxx
Password:
Login incorrect

Exhibit H-7 Login Incorrect Message

This screen shot represents Exhibit 3-11 when an account is disabled.

WARNING! THIS SYSTEM IS FOR AUTHORIZED USE ONLY!

This computer system is the property of the United States Government. The Government may monitor any activity on the system and retrieve any information stored within the system. By accessing and using this system, you are consenting to such monitoring and information retrieval for law enforcement and other purposes. Users should have no expectation of privacy as to communication on or stored within the system, including information stored locally on the hard drive or other media in use within the unit (e.g., floppy disks, tapes, CD-ROMs, etc.).

login: xxxxxxxx

Password:

This account is currently disabled.

Exhibit H-8 Disabled Account Message

This screen shot represents Exhibit 3-12 when the system is unavailable.

WARNING! THIS SYSTEM IS FOR AUTHORIZED USE ONLY!

This computer system is the property of the United States Government. The Government may monitor any activity on the system and retrieve any information stored within the system. By accessing and using this system, you are consenting to such monitoring and information retrieval for law enforcement and other purposes. Users should have no expectation of privacy as to communication on or stored within the system, including information stored locally on the hard drive or other media in use within the unit (e.g., floppy disks, tapes, CD-ROMs, etc.).

login: xxxxxxxx

Password:

EFS is currently unavailable. Additional information may be available on IRS quick alerts.

Exhibit H-9 EFS Unavailable Message

This screen shot represents Exhibit 3-13 when the system is busy.

WARNING! THIS SYSTEM IS FOR AUTHORIZED USE ONLY!

This computer system is the property of the United States Government. The Government may monitor any activity on the system and retrieve any information stored within the system. By accessing and using this system, you are consenting to such monitoring and information retrieval for law enforcement and other purposes. Users should have no expectation of privacy as to communication on or stored within the system, including information stored locally on the hard drive or other media in use within the unit (e.g., floppy disks, tapes, CD-ROMs, etc.).

login: xxxxxxxx
Password:

EFS is busy. Wait at least 10 minutes, then retry.

Exhibit H-10 EFS Busy Message

The following represent sample screen shots for the password change functionality. For more explanation refer to the exhibit referenced in Section 8 Changing Password of this manual.

This screen shot represents Exhibit 8-3, when password change is successful.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [COMPRESS]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice: 6

Enter current password:
Enter new password:
Re-enter new password:

Password changed.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [COMPRESS]
- 5) Request Transmission Status Report
- 6) Change Password

Exhibit H-11 Password Change Confirmation

This screen shot represents Exhibit 8-5, when an incorrect current password is entered.

```
MAIN MENU

1) Logoff
2) Receive/Send File(s)
3) Change File Transfer Protocol [ZMODEM]
4) Change Compression Method [COMPRESS]
5) Request Transmission Status Report
6) Change Password

Enter your choice: 6

Enter current password:
Enter new password:
Re-enter new password:
Incorrect current password.

Enter current password:
Enter new password:
Enter new password:
Enter new password:
Enter new password:
Re-enter new password:
```

Exhibit H-12 Incorrect Current Password Message

This screen shot represents Exhibit 8-6, when the new password and the re-entered password do not match.

```
MAIN MENU

1) Logoff
2) Receive/Send File(s)
3) Change File Transfer Protocol [ZMODEM]
4) Change Compression Method [COMPRESS]
5) Request Transmission Status Report
6) Change Password

Enter your choice: 6

Enter current password:
Enter new password:
Re-enter new password:
New passwords don't match.

Enter current password:
Enter new password:
Enter new password:
Enter new password:
Enter new password:
Re-enter new password:
```

Exhibit H-13 Unmatched New Passwords Message

This screen shot represents Exhibit 8-7, when the password does not satisfy password rule requirements.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [COMPRESS]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice: 6

Enter current password: Enter new password: Re-enter new password:

Password rule(s) have not been met.

Enter current password:
Enter new password:
Re-enter new password:

Exhibit H-14 Password Rule Violation Message

This screen shot represents Exhibit 8-8, when an attempt is made to change the password within 7 days from the last successful password change.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [COMPRESS]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice: 6

Enter current password:
Enter new password:
Re-enter new password:

Less than 7 days from last change. Password not changed.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [COMPRESS]
- 5) Request Transmission Status Report
- 6) Change Password

Exhibit H-15 Less Than 7 Days Message

This screen shot represents Exhibit 8-9, attempting to change the password when another session is changing the password.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [COMPRESS]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice: 6

Enter current password:
Enter new password:
Re-enter new password:

Password not changed. Another session is trying to change the password.

Exhibit H-16 Another Session Changing Password Message

This screen shot represents Exhibit 8-10, when a system error occurs during the change password process.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [GZIP]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice: 6

Enter current password:
Enter new password:
Re-enter new password:

System error.

DISCONNECTING FROM EFS

Exhibit H-17 System Error and Disconnecting Message

This screen shot represents Exhibit 8-11, when a user attempts to change their password more than once in a single session.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [COMPRESS]
- 5) Request Transmission Status Report
- 6) Change Password

Enter your choice: 6

Can only choose Change Password once.

MAIN MENU

- 1) Logoff
- 2) Receive/Send File(s)
- 3) Change File Transfer Protocol [ZMODEM]
- 4) Change Compression Method [COMPRESS]
- 5) Request Transmission Status Report
- 6) Change Password

Exhibit H-18 Change Password Once Message

Appendix I

Text for EEC Error Acknowledgments



General Error Acknowledgments Applicable to all Return Types

| | Error Message | Description | Applicable Form Types |
|----|--|--|--|
| 1. | "A VIRUS (Virus Name) WAS DETECTED IN THIS FILE" | This error ack is returned in XML format when EMS detects a virus in a transmission file. The TP must clean up the file and call the appropriate e-Help desk for permission to transmit. | All form types, regardless of format in which they were submitted. |
| 2. | "EMS received your file, but could not process it. Please check your file and re-transmit" | This error ack is returned in XML format when EMS receives a file, but fails to decompress and process it. | All form types, regardless of format in which they were submitted. |
| 3. | "Transmission file not in acceptable format" | This error Acknowledgment is returned in XML format if a TP submits a file that EMS cannot recognize as IRS proprietary, combined state ack or XML format. | All form types, regardless of format in which they were submitted. |
| 4. | "Transmission file in <format> format not valid for transmitter"</format> | This error Acknowledgment is returned in XML format if a TP submits a file in an EMS-recognized format but the TP is not registered to send forms in the submitted format. | All form types, regardless of format in which they were submitted. |

Proprietary Format Error Acknowledgments

| | Error Message | Description | Applicable Form Types |
|----|--|--|---------------------------------------|
| 1. | "ADDITIONAL TAX DATA AFTER RECAP RECORD" | If tax data exists after the final RECAP record, EMS rejects the transmission. | 1040, 1041, ETD, 1065, StAck |
| 2. | "EIN IN TRANA DOES NOT MATCH EIN PROFILE" | If the EIN in columns 15-23 of the TRANA record does not match the EIN of the trading partner sending the transmission, EMS rejects the transmission. | 1041, 1065 |
| 3. | "EIN IN TRANB DOES NOT MATCH EIN IN TRANA" | If the EIN in columns 15-23 of the TRANB record does not match the EIN in columns 15-23 of the TRANA record, EMS rejects the transmission. | 1041, 1065 |
| 4. | "INVALID FORM FORMAT BEGINNING AT RECORD n" | For IRS Proprietary format ETD transmissions, EMS validates that every form begins with a FRM record (valid Record ID, Form Number, and Page Number fields) and ends with a summary record. In addition, the form record must contain a numeric TIN that matches the TIN in the summary record. If not, EMS rejects the entire transmission and returns an Error Ack file. Also, if the last record byte count and end of record (#) do not agree, record sentinel **** is not present, "RECAP" is not in columns 9-14, byte count is >120 characters or is not numeric, or CR or LF imbedded within the record, EMS rejects the transmission. | ETD |
| 5. | "INVALID FORM TYPE FOR THIS EMS PROCESSING SITE" | If the EMS Site is not processing the form type specified in the transmission type code field (column 118) of the TRANA record, EMS rejects the transmission. | 1040, 1041, 1065, ETD, StAck |
| 6. | "INVALID JULIAN DAY IN THE TRANA RECORD" | If the Julian day in columns 91-93 of the TRANA record is less than the current Julian Day - 2 or more than the current Julian Day + 1. | 1040, ETD, 1065 |

| Error Message | Description | Applicable Form Types |
|---|--|---------------------------------------|
| 7. "INVALID PROCESSING SITE DESIGNATOR. B=OGDEN" | For 1065 and 1041 transmissions, if the letter code for Site Designator in column 75 of the TRANA record is not equal to 'B' (Ogden), EMS rejects the transmission. | 1041, 1065 |
| 8. "INVALID PROCESSING SITE DESIGNATOR. C=ANDOVER E=AUSTIN F=KANSAS CITY G=PHILADELPHIA H=FRESNO" | For 1040 and ETD transmissions if the letter code for Site Designator in column 75 of the TRANA record is not equal to one of the specified letter codes, EMS rejects the transmission. If the actual processing site and the Site Designator in the TRANA record do not agree, EMS rejects the transmission. | 1040, ETD, StAck |
| 9. "INVALID PROCESSING YEAR CODE" | For 1065 transmissions, if the processing year code in column 110 of the TRANA record is not 'P' for Prior or 'C' for Current, EMS rejects the transmission. | 1065 |
| 10. "INVALID PRODUCTION- TEST CODE. P = PRODUCTION, T = TEST" | If the test/production indicator in column 117 of the TRANA record does not equal 'T' or 'P', EMS rejects the transmission. | 1040, 1041, ETD, 1065, StAck |
| 11. "INVALID RECAP: WRONG LENGTH OR EMBEDDED #" | If the byte count of the last record is less than 120 and the end of record # agrees with the byte count, EMS rejects the transmission. | 1040, 1041, ETD, 1065, StAck |
| 12. "INVALID RECORD FORMAT IN RECORD NUMBER n" | For IRS Proprietary format records, EMS validates that each record begins with a 4 digit byte count, followed by the 4 asterisk record sentinel and the last character is a #, based on the byte count in the first four digits. If these fields are not present, EMS rejects the entire transmission and generates an error acknowledgment file with the Error Ack message. | 1040, 1041, ETD, 1065 |

| | Error Message | Description | Applicable Form Types |
|-----|---|---|---------------------------------------|
| 13. | "INVALID T/P MODE FOR PROCESSING SITE DESIGNATOR" | If EMS Site is processing the form type for the site designator (column 75) specified in the TRANA record, but not for the specified test/production indicator (column 117), EMS rejects the transmission. | 1040, 1041, 1065, ETD, StAck |
| 14. | "INVALID TAX RETURN FORMAT BEGINNING AT RECORD n" | For IRS Proprietary format return transmissions, EMS validates that every return envelope begins with a tax return record (valid Record ID, Return type and Page number fields) and ends with a summary record. In addition, the tax return record must contain a numeric TIN that matches the TIN in the summary record. If an error is encountered in this return envelope, EMS rejects the entire transmission and returns the Error Ack. Also, if the last record byte count and end of record (#) do not agree, record sentinel **** is not present, "RECAP" is not in columns 9-14, byte count is >120 characters or is not numeric, or CR or LF imbedded within the record, EMS rejects the transmission. | 1040, 1041, 1065 |
| 15. | "INVALID TOTAL FORM COUNT IN RECAP" | EMS rejects the entire transmission and generates an Error Ack file with the new message if the number of ETD forms counted does not match the Total Form Count in columns 29-34 of the RECAP record. | ETD |
| 16. | "INVALID TOTAL RETURN COUNT IN RECAP" | EMS rejects the entire transmission and generates this Error Ack file if the number of tax returns counted does not match the Total Return Count in columns 29-34 of the RECAP record. | 1040, 1041, 1065 |
| | "INVALID TRANA: WRONG LENGTH OR EMBEDDED #" | If the byte count of the first record is less than 120 and the end of record # agrees with the byte count, EMS rejects the transmission. | 1040, 1041, ETD, 1065, StAck |

| Error Message | Description | Applicable Form Types |
|--|--|---------------------------------------|
| 18. "INVALID TRANB: WRONG LENGTH OR EMBEDDED #" | If the byte count of the second record is less than 120 and the end of record # agrees with the byte count, EMS rejects the transmission. | 1040, 1041, ETD, 1065, StAck |
| 19. "INVALID TRANSMISSION TYPE CODE" | If the letter in column 118 of the TRANA record is not a valid transmission type code, EMS rejects the transmission. | 1040, 1041, ETD, 1065, StAck |
| 20. "THE ETIN CORRESPONDING TO THE EMS LOGIN ID AND THE ETIN IN THE TRANA RECORD WERE DIFFERENT" | If the ETIN in columns 84-88 of the TRANA record does not match the login ETIN, EMS rejects the transmission. | 1040, 1041, ETD, 1065, StAck |
| 21. "MULTIPLE TRANA/TRANB RECORDS DETECTED" | If multiple TRANA, TRANB, or RECAP records are found within a file, EMS rejects the transmission. | 1040, 1041, ETD, 1065 |
| 22. "NO FORMS WITHIN THE TRANSMISSION" | If there are no forms within an ETD transmission, EMS rejects the entire transmission. | ETD |
| 23. "NO RECAP RECORD RECEIVED; POSSIBLY DUE TO A LINE PROBLEM" | If there is no RECAP record within the tax return, the last record byte count and end of record (#) do not agree, record sentinel **** is not present, "RECAP " is not in columns 9-14, byte count is >120 characters or is not numeric, or CR or LF imbedded within the record, EMS rejects the transmission. | 1040, 1041, ETD, 1065, StAck |
| 24. "NO RETURNS WITHIN THE TRANSMISSION" | If there are no returns within a transmission, EMS rejects the entire transmission. | 1040, 1041, 1065 |
| 25. "NO TRANA RECORD RECEIVED" | If the first record byte count and end of record (#) do not agree, record sentinel **** is not present, "TRANA " is not in columns 9-14, byte count is >120 characters or is not numeric, or CR or LF imbedded within the record, EMS rejects the transmission. | 1040, 1041, ETD, 1065, StAck |

| Error Message | Description | Applicable Form Types |
|---|---|---------------------------------------|
| 26. "NO TRANB RECORD RECEIVED" | If the second record byte count and end of record (#) do not agree, record sentinel **** is not present, "TRANB" is not in columns 9-14, byte count is >120 characters or is not numeric, or CR or LF imbedded within the record, EMS rejects the transmission. | 1040, 1041, ETD, 1065, StAck |
| 27. "PRODUCTION-TEST CODE IN TRANA RECORD DOES NOT MATCH PROFILE" | If the test/production indicator in column 117 of the TRANA record does not match the test/production mode in the trading partner profile, EMS rejects the transmission. | 1040, 1041, ETD, 1065, StAck |
| 28. "TRANSMITTER NOT VALID FOR TRANSMISSION TYPE" | If the trading partner is not registered for the transmission type specified in column 118 of the TRANA record, EMS rejects the transmission. | 1040, 1041, ETD, 1065, StAck |

Contents of State Transmission Acknowledgement and State Communications Error Acknowledgments

| | Error Message | Description | Applicable Form Types |
|----|--|--|--------------------------|
| 1. | "ACK COUNT IN TRANSMISSION RECAP RECORD DOES NOT MATCH THE COUNT OF ACKS RECEIVED" | The number of inner-envelope record-sets does not match the number in columns 29-34 of the outer-envelope RECAP record. | StAck |
| 2. | "INVALID INNER ENVELOPE PRODUCTION-TEST CODE. P = PRODUCTION, T = TEST AT RECORD <n>"</n> | Letter in column 117 (test/production indicator) of inner-envelope TRANA record is not T or P. | StAck |
| 3. | "ETIN IN INNER ENVELOPE AT RECORD <n> NOT VALID"</n> | ETIN in columns 84-88 of inner-envelope TRANA record does not match a valid ETIN in the EMS database. | StAck |
| 4. | "FIRST RECORD WITHIN INNER ENVELOPE MUST BE ACK KEY AT RECORD <n>"</n> | Third record in inner-envelope is not an ACK record. | StAck |
| 5. | "INVALID DCN VALUE DETECTED WITHIN ACK KEY RECORD AT RECORD <n>"</n> | The return DCN in columns 55-57 of the Ack Key record is not present or the first two digits are not zeros. | StAck |
| 6. | "INVALID ETIN MISMATCH IN INNER TRANA RECORD AND ACK KEY RECORD AT RECORD <n>"</n> | The ETIN in columns 26-30 of the inner TRANA record does not match the ETIN in columns 84-88 of the Ack Key record. | StAck |
| 7. | "INVALID FORM TYPE IN INNER ENVELOPE FOR THIS EMS PROCESSING SITE AT RECORD <n>"</n> | EMS Site is not processing the State Ack form type for the site designator (column 75) specified in the inner_envelope TRANA record. | StAck |

| Error Message | Description | Applicable Form Types |
|---|---|--------------------------|
| 8. "INVALID INNER ENVE FORMAT AT RECORD <n< td=""><td>5</td><td>StAck</td></n<> | 5 | StAck |
| 9. "INVALID INNER ENVE RECAP: WRONG LENGTH EMBEDDED # AT RECOR <n>"</n> | OR correctly formatted inner- | StAck |
| 10. "INVALID INNER ENVE TRANA: WRONG LENGTH EMBEDDED # AT RECOR <n>"</n> | OR is not a correctly formatted | StAck |
| 11. "INVALID INNER ENVE TRANB: WRONG LENGTH EMBEDDED # AT RECOR <n>"</n> | OR envelope is not a correctly | StAck |
| 12. "INVALID PROCESSING SITE DESIGNATOR. C=Andover E=AUSTIN F=KANSAS CITY G=PHILADELPHIA H=FRESNO AT n" | Site designator (column 75) specified in the inner_envelope TRANA record is not C, E, F, G, or H. | StAck |

| Error Message | Description | Applicable Form Types |
|--|--|--------------------------|
| 13. "INVALID TOTAL ACK KEY COUNT IN INNER ENVELOPE RECAP AT RECORD <n>"</n> | Number of ACK records after the inner-envelope TRANB record and before the inner-envelope RECAP record does not match the number in columns 29-34 of inner-envelope RECAP record. | StAck |
| 14. "INVALID TOTAL ACKR COUNT IN INNER ENVELOPE RECAP AT RECORD <n>"</n> | Number of ACKR records after the inner-envelope TRANB record and before the inner-envelope RECAP record does not match the number in columns 65-70 of inner-envelope RECAP record. | StAck |
| 15. "INVALID TRANSMISSION TYPE CODE IN INNER ENVELOPE AT RECORD <n>"</n> | Letter in column 118 of inner- envelope TRANA record not Z for State Ack transmission type. | StAck |
| 16. "MULTIPLE INNER ENVELOPE TRANA/TRANB RECORDS DETECTED AT RECORD <n>"</n> | More than one TRANA or TRANB record occurs before the inner-envelope RECAP record. | StAck |
| 17. "NO ACKNOWLEDGEMENTS WITHIN THE TRANS- MISSION" | No inner-envelope record-sets were found in the file. | StAck |
| 18. "NO INNER ENVELOPE TRANA RECORD RECEIVED AT RECORD <n>"</n> | First record in inner-envelope is not a correctly formatted inner-envelope TRANA record as follows: a. Byte count and end of record (#) do not agree, or b. record sentinel (****) is not present, or c. byte count is not numeric, or d. <cr> or <lf> embedded within the record, or e. "TRANA " is not in columns 9-14.</lf></cr> | StAck |

| Error Message | Description | Applicable Form Types |
|---|---|--------------------------|
| 19. "NO INNER ENVELOPE TRANB RECORD RECEIVED AT RECORD <n>"</n> | Second record in inner- envelope is not a valid inner- envelope TRANB record as follows: a. Byte count and end of record (#) do not agree, or b. record sentinel (****) is not present, or c. byte count is not numeric, or d. <cr> or <lf> embedded within the record, or e. "TRANB " is not in columns 9-14.</lf></cr> | StAck |
| 20. "NON-MATCHING ETIN IN RECAP AT RECORD <n>"</n> | ETIN in columns 35-39 of RECAP record does not match the ETIN in either the inner-envelope or outer envelope TRANA records. | StAck |
| 21. "THE T/P INDICATOR FOR INNER ENVELOPE AT RECORD <n> MUST BE T FOR TEST"</n> | State Transmitter is in test mode, but letter in column 117 (test/production indicator) of inner-envelope TRANA record is not T. | StAck |
| 22. "TRANSMISSION RECEIVED WITH n ACK FILES" | This communication acknowledgment is return for all successfully validated state transmissions. | StAck |

Special Case Error Acknowledgments Applicable to Returns Submitted in XML Format

| | Error Message | Description | Applicable Form Types |
|----|--|--|--|
| 1. | "AN XML THREAT WAS DETECTED IN THIS FILE" (threat description). | This error ack is returned when EMS detects an XML threat in a transmission file. The TP must clean up the file and retransmit it. | All forms submitted in XML format |
| 2. | "AN XML THREAT WAS DETECTED IN THIS FILE (threat description). YOUR ACCOUNT HAS BEEN SUSPENDED." | This error ack is returned when EMS detects certain XML threats in a transmission file. The TP must clean up the file and call the appropriate e-Help desk for permission to transmit. | All forms submitted in XML format |
| 3. | "The ETIN corresponding to the EMS Login ID did not match the transmitter ETIN provided in the TransmissionHeader" | If the ETIN that corresponds to the trading partner's Login ID used to log on to the EMS system does not match the ETIN in the transmission header, EMS rejects the transmission. | 94X |



Appendix J

Acronym List



ACRONYM LIST

ACK Acknowledgment

CSU/DSU Channel Service Unit/Digital Service Unit

DCN Declaration Control Number
DES Data Encryption Standard

DNS Domain Name Service

EFS Electronic Filing System
EMS Electronic Management System
ETA Electronic Tax Administration

ETIN Electronic Transmitter Identification Number

FAK Functional Acknowledgment FEPS Front-End Processing System

FIPS Federal Information Processing Standard

FTP File Transfer Protocol

FW Firewall

GD General Deployment
GTX Global Transaction Key

IOS Internetworking Operating System

IP Internet Protocol

IPsec Internet Protocol Security IRS Internal Revenue Service

ISDN Integrated Services Digital Network

ISP Internet Service Provider

NAK Negative Acknowledgment (or error acknowledgment)

NAT Network Address Translation

NIST National Institute of Standards and Technology

PIN Personal Identification Number

PPP Point-to-Point Protocol

SPC Submission Processing Center SRS State Retrieval Subsystem

SSL Secure Sockets Layer

TCP/IP Transmission Control Protocol/Internet Protocol

TP Trading Partner

TPDS Third Party Data Store

VPN Virtual Private Network

VT Virtual Terminal

XML eXtensible Markup Language

